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# THE BRITISH SCHOOL AT ATHENS.

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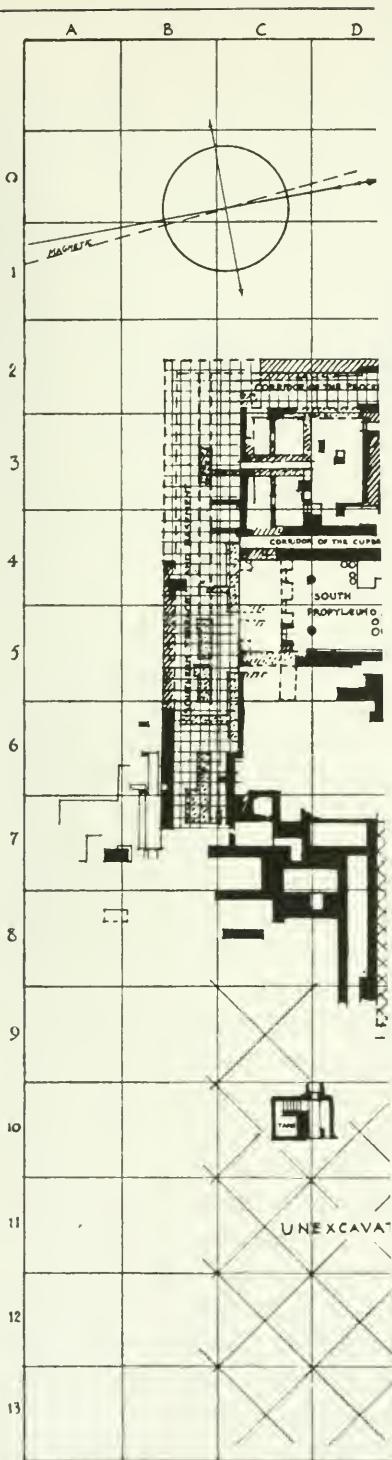
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## PREFATORY NOTE.

IT had been intended to include the Report on the School's excavations at Praesos in this number, but it is unavoidably postponed to the next. The Report on Knossos, contributed by Mr. A. J. Evans, has been for some time in private circulation.

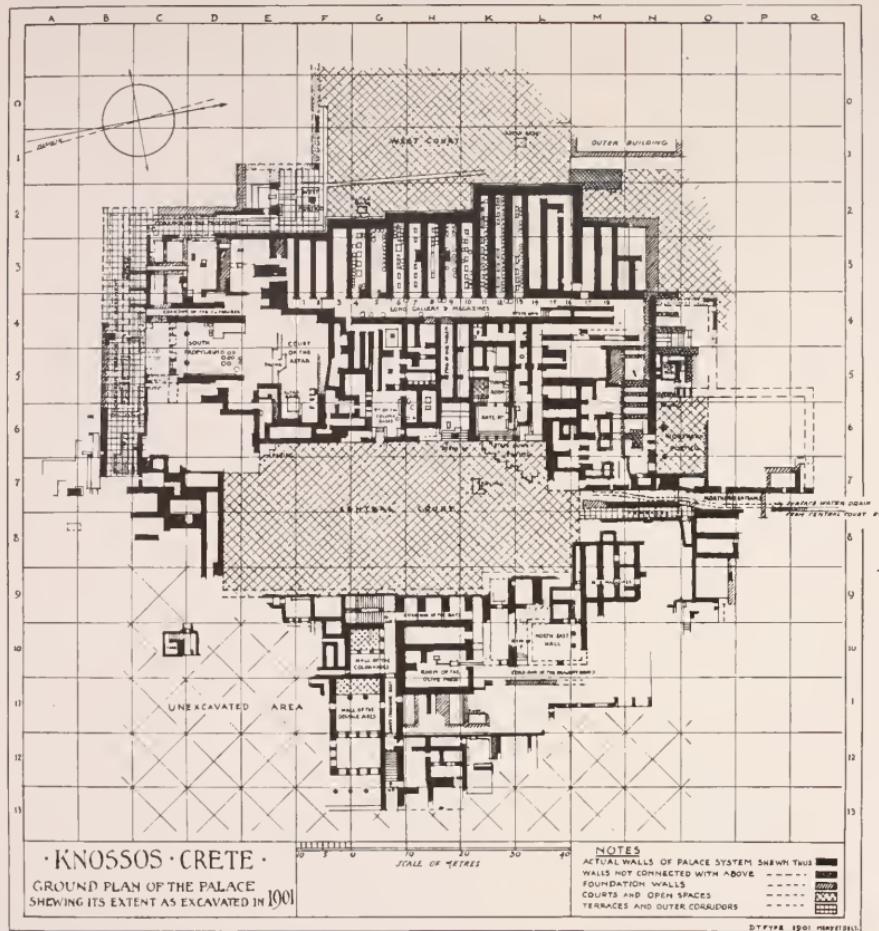




· KNOSSOS · CRETE

GROUND PLAN OF THE PALACE  
SHEWING ITS EXTENT AS EXCAVATED

Plate I.



· KNOSSOS · CRETE

GROUND PLAN OF THE PALACE  
SHEWING ITS EXTENT AS EXCAVATED IN 1901

10 5 0 10 20  
SCALE OF METRES

---

NOTE

ACTUAL WALLS OF PALACE SYSTEM SHewn THUS  
 WALLS NOT CONNECTED WITH ABOVE - - - -  
 FOUNDATION WALLS - - - -  
 COURTS AND OPEN SPACES - - - -  
 TERRACES AND OUTER CORRIDORS - - - -

DT TYPE 1901 MAY 10

GROUND PLAN OF THE PALACE OF KNOSSOS, SHOWING ITS EXTENT AS EXCAVATED IN 1901.

## THE PALACE OF KNOSSOS.

*Provisional Report of the Excavations for the Year 1901.*

BY ARTHUR J. EVANS.

---

### § I.—THE CAMPAIGN OF 1901.

THE work of excavation on the Palace site at Knossos was re-opened on February 27, 1901, and continued till June 17. Various supplementary operations connected with the shoring up and underpinning of the walls of large halls brought to light on the south-east of the site, the completion of the roofing-in of the Throne Room, and similar works of conservation entailed the continued employment of a large number of workmen till the beginning of July. Throughout the excavations I again secured the valuable services of Dr. Duncan Mackenzie as my assistant in directing the works, and of Mr. D. T. Fyfe, formerly architect of the British School, in preparing architectural plans and drawings.

The building itself, as will be seen from the present Summary Report, took an even vaster development than it was possible to foresee, and as, for the purpose of delimitation, it was necessary besides to make a thorough exploration of the surrounding zone on its western, northern and eastern borders the work necessitated the employment of a large number of men. Throughout a great part of the season as many as two hundred workmen were constantly employed.

Besides the opening out of new quarters of the Palace, a good deal of attention was directed towards the more exhaustive exploration of certain parts of the building already partially excavated in 1900, and at the same time towards the solution of some of the problems suggested by the work already executed. Considerable labour was devoted to the thorough examination of the south-west angle of the building, the continuation of

the Corridor of the Procession and its relation to the Southern Terrace and Propylaeum. North of the Propylaeum, again, the walls of a series of chambers were tested and re-examined with a view to defining the outline of the upper halls or "Megara" that once undoubtedly rose above them. A series of the "Kaselles" beneath the floors of the Magazines were opened and their contents thoroughly sifted. A large number of additional shafts were also sunk both within and without the walls of the Palace in order further to explore the underlying Neolithic settlement.<sup>1</sup>

Of the works of conservation undertaken the most important was the enclosing and roofing-in of the Throne Room—a work rendered urgent by the effect which exposure to the weather was already beginning to produce both on the throne itself and the seats and parapet. In order to support the roof it was necessary to place some kind of pillars in the position formerly occupied by the Mycenaean columns, the burnt remains of which were found fixed in the sockets of the stone bench opposite the throne. This necessity and the desire to avoid the introduction of any incongruous elements amid such surroundings determined me to reproduce the form of the original Mycenaean columns. An exact model both for the shape and colouring was happily at hand in the small fresco of the temple façade, and the work was successfully executed under Mr. Fyfe's superintendence.

In order to protect the room from wanton damage we were further reluctantly obliged to place a substantial iron railing and door across the entrance. For this, unfortunately, no Knossian model was forthcoming, and the best that could be done was to get a native smith of Candia to make a scroll-work railing of wrought iron of the kind that it is usual here to place before Mahometan shrines, the spiral designs of which at least are curiously in harmony with Mycenaean patterns. About the middle of the opening in order to give support to this barrier a stone pillar was set up in a socket of the pavement where a wooden one had once stood.

## § 2.—THE WESTERN COURT, PORTICO, AND ENTRANCE.

One of the leading features of the excavation was the great increase of area gained by the Western Court. The whole line of the West Wall of

<sup>1</sup> A short report of the results of the exploration of this Neolithic Settlement was made by me to the Anthropological Section of the British Association (Glasgow Meeting, September 1901). An abstract of this is printed in the Annual Report of the Association, and in *Man*, December 1901 (No. 146).

the Palace was now brought to light to a point nearly twice as far to the north of the West Portico as the portion excavated in 1900. As before, this wall formed for the most part the backing of a series of Magazines, six of them longer than any yet uncovered. At this point the course of the West Wall is again marked by one of the shallow recesses already noted in the earlier excavated part, which also recur in the outer wall of the Palace at Phaestos. After passing these Magazines, where the outer wall attains its greatest projection west, it again took a rectangular turn back and reached

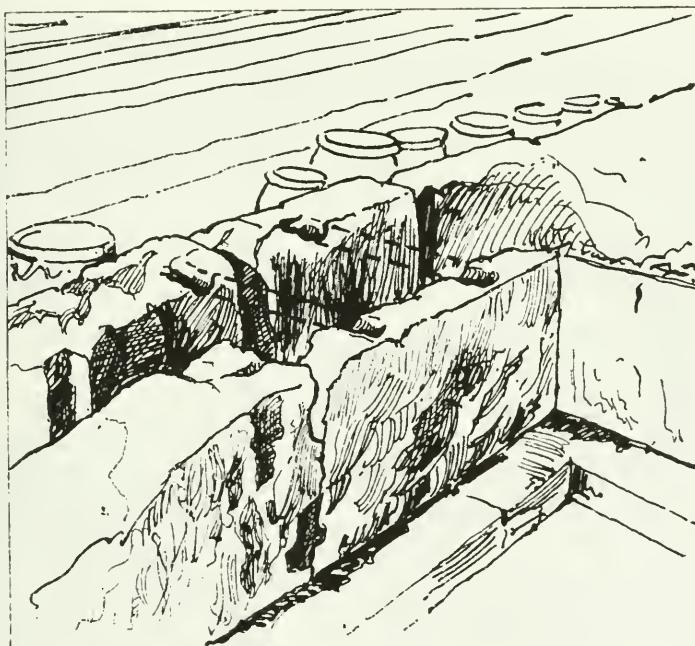


FIG. I.—ANGLE OF WEST WALL, SHOWING SOCKETS OF WOODEN STRUTS.

the extreme north-west angle of the building in a line with its starting point outside the West Portico.

Behind the Long Magazines the method followed in the construction of this Western Wall was very perceptible and revealed that curious economy of material so characteristic of the builders of the Palace. The great gypsum slabs visible both in the outer and inner face of this wall were not in fact continuous. The actual thickness of these did not exceed 50 centimetres, and between them there was a space of about a metre filled

with clay and rubble. At the same time, to give compactness to the whole, wooden struts were set between them, the sockets of which were to be seen on the inner sides of the great slabs (see Fig. 1).

The extreme northern end of the West Wall could only be traced by means of the foundations, hereabouts about a metre and a half deep and consisting of a dry walling of smaller limestone blocks resting on a plinth.

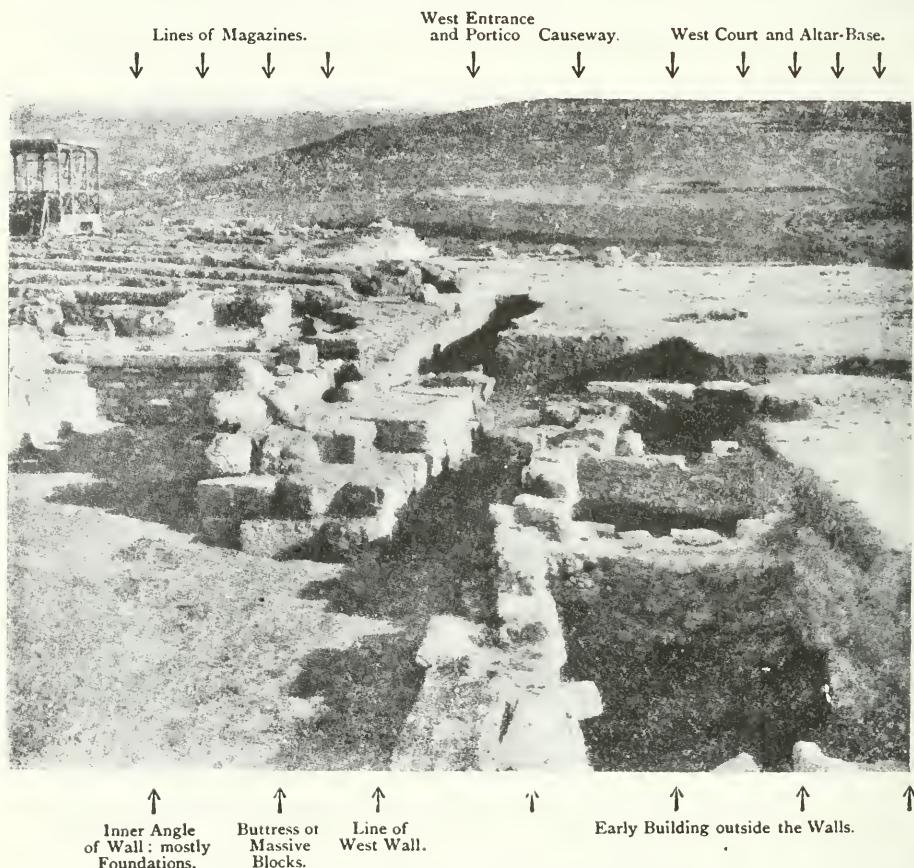


FIG. 2.—VIEW LOOKING SOUTH TOWARDS THE FIRST NORTH-WEST ANGLE OF PALACE.

The angles of this, as may be seen from Plate II. and Fig. 2, were very finely preserved. Proceeding southwards the depth of these foundations gradually decreased with the rise of the ground.

Against the north-west angle of the wall, outside the Long Magazines,

had been set an oblong structure of large limestone blocks which had the appearance of very primitive build (see Fig. 2). It is probable, however, from its position against the corner of the wall, that this massive platform was really a later structure carried out with the object of supporting the foundations of the building at this angle, where, as is shown from the remains of frescoes, a stone frieze and other architectural fragments, there was evidently an important superstructure.

Separated from this massive buttress by about a metre's space were the foundations and lower part of the walls of an elongated rectangular building divided into three main compartments, the south end of which forms a limit to the Western Court on this side. The upper floors here were of Mycenaean date, but in the lower part of the chambers were found abundant fragments of pottery of the pure Kamáres Period, including specimens of the fine embossed "egg-shell" ware which represents the highest ceramic product of pre-Mycenaean Crete, and was evidently copied from prototypes of repoussé metal-work.

The relics of the best Kamáres Period are conspicuous by their absence in the chambers of the Palace itself, and the preservation of this building in such immediate proximity to the wall and actually abutting on the great West Court may possibly indicate that it served some religious purpose. It is noteworthy in this connexion that a double axe was painted on one of the fragments, the bottom of a vase, recalling a similar symbol on a vase found in a house to the west of this spot.<sup>1</sup> The double axe in a specially votive form reappears as on the Mycenaean pottery of the "Palace style."<sup>2</sup>

In the Western Court, opposite the south end of this building and 6·60 metres distant from the shallow recess already described in the wall behind the Long Magazines, was unearthed a second altar-base of limestone blocks 1·90 m. x 1·72 in dimensions,<sup>3</sup> closely resembling that already noted nearer the West Portico. Starting from the centre of the western wing of this Portico and running somewhat diagonally north-westwards so as to avoid the great angle of the West Wall is a curious narrow causeway more carefully paved than the rest of the Court and slightly raised above its level. Its appearance at first sight suggests the base of an earlier wall, but that it is in fact a causeway is now placed beyond a doubt by the remarkable parallel discovered at Phaestos. There, running in the same diagonal

<sup>1</sup> D. G. Hogarth, *B. S. Annual*, 1900, pp. 79. So : *J. H. S.* 1900, p. 87.

<sup>2</sup> See below p. 53.

<sup>3</sup> Somewhat defective on north-west side.

fashion across the Court that lies outside the western wall of the Palace, is a precisely similar causeway leading to a step-way that ascends the tiers of seats that command the northern end of the Court. Thus at Phaestos we see a similar causeway, leading presumably from a gate of the Palace, serving as an avenue of approach to what seems to have been a prehistoric theatre—arranged like a grand stand—overlooking a very ancient altar. Whether any structure analogous to this archaic theatre existed at Knossos it is impossible now to say, but the parallelism of altars and causeways is very suggestive.

There can at least be little doubt that this Western Court outside the Palace Walls must have formed the great gathering-place, or *Agora*, for the citizens of Mycenaean Knossos. From north to south it extends some 50 metres, but on the western side no definite line of delimitation exists, and it seems to have an almost unlimited extension. The rough paving may possibly have been originally covered with a kind of cement, as was certainly the case with the area beneath the Portico. Where a test pit was dug into it, at a point about 30 metres west of the first-discovered altar-base, it was found immediately to overlay a stratum containing first Mycenaean and then Kamáres sherds. Nearer the West Wall, however, Kamáres sherds were found immediately below the pavement and went down about 2 metres to the Neolithic stratum. This seems to indicate that the Agora had been many centuries in use, during which its level had gradually risen; the stone pavement, however, for the most part dating from the earliest period of the building.<sup>1</sup> This Court has a distinct Western slope.

Whether or not the Agora was overlooked originally by raised seats like the Western Court at Phaestos, the long plinth at the base of the West Wall, also paralleled at Phaestos, must at all times have afforded an admirable sitting place for a large number of persons, and indeed was frequently used for this purpose by my Cretan workmen. It does not require a great stretch of imagination to see the Elders of a Mycenaean Assembly seated in the same place, while the King himself sate at the gate on the Seat of Judgment in the stately Portico beyond.

It will be remembered that this Portico gave access to a double entrance, one doorway leading directly to the Corridor of the Procession, while the other opened on a separate chamber. A re-investigation of the founda-

<sup>1</sup> In some places, however, the Kamáres deposit began immediately beneath the pavement.

tions has made it clear that the side chamber, which communicated with the Corridor by means of a small lateral doorway, was of somewhat larger dimensions than had been at first made out. This chamber was surely something more than a mere "Porter's Lodge." It is at least a probable conjecture that this room with its stately portal facing the great Western Court was on such occasions specially reserved for the royal use.

The Portico itself must have been an imposing structure. The column-base in the centre of its opening has a diameter of 1·25 metres, and taking as a guide the proportions of the pillars depicted in the "Temple" fresco, the wooden column which rose above it and supported the architrave would have attained a height of 5 metres or over sixteen feet. The architrave must also have been supported by substantial piers on either side. On the east side indeed the solid gypsum block which formed the base of this is visible with a dowel hole for an upright wooden beam. The pavement within the Portico, as will be seen from the plan (Pl. I.), is divided into square and oblong spaces, formerly coated with red-coloured cement, by lines of slab pathway, one branch of which finds its continuation in the causeway already described, and in another similar gangway which starts from the latter at right angles in a westerly direction. Two other branches of the pathways within the Portico lead through the middle of the doorways, one of these prolonging itself in the central line of slabs that run along the Corridor of the Procession.

### § 3.—THE CORRIDOR OF THE PROCESSION TRACED TO THE S.W. CORNER AND PROLONGED, FROM INDICATIONS, ALONG THE SOUTHERN TERRACE.

The rapid fall of the ground beyond the south-western angle of the Palace had entailed the almost complete denudation of the upper part of the neighbouring structure. It was, therefore, the more necessary to make a very careful exploration of the remains of foundations hereabouts, as a guide for reconstructing the upper lines. Happily, by very reason of the slope of the ground, the builders had here laid the foundations of exceptionally massive blocks, and the line of a thick outer wall forming the continuation of the west wall of the Corridor of the Procession was clearly indicated. West of these foundations were others of a less important character which evidently had belonged to private houses built here close

up against the Palace wall, while a little beyond was the better preserved house with gypsum pillars excavated by Mr. Hogarth in 1900.<sup>1</sup>

In my previous Report the conjectural view had been already advanced that the Corridor of the Procession, after continuing to the south-west corner of the Palace above the lower part of the Southern Terrace, "took a turn at right angles, and following the top of the Terrace wall afforded access to the Southern Propylaeum." A valuable corroboration and amplification of this view is now afforded, not only by the existence of foundations clearly marking the prolongation of the stately entrance Corridor to the south-west angle of the Southern Terrace, but by other circumstances. Below the point where the Corridor must have abutted on the Terrace occurred a fresco fragment consisting of the foot and the corner of the robe of a male figure similar to those of the "Procession" found on the walls of the Corridor nearer the Western Entrance. Near the same spot were also found pieces of the characteristic blue slate slabs that form the border of the Corridor pavement, and many other examples of the same occurred at various spots above the floor level of the Southern Terrace—a striking indication of the continuation of the Corridor along its upper floor. A supporting wall, which seems originally to have run with small interruption along the middle of the basement of the Southern Terrace, was apparently built with the special object of supplying a base to an upper wall or colonnade which would be the continuation of the outer wall of the Corridor. It is probable that the outer face of the Corridor above this supporting wall formed a long colonnade opening on a flat terrace representing the roof of the outer division of the basement. Opposite the centre of this Colonnade was the broad opening that gave access to the Southern Propylaeum, and thus to upper *Megara* beyond, the existence of which can now be ascertained with sufficient certainty. That a similar system of wall decoration was common to all this avenue of approach from the Western Entrance is indicated by the finding of the Cup-Bearer fresco, a figure analogous to those of the Corridor of the Procession, at the back of the Southern Propylaeum in a position which showed that it had fallen backwards from its inner wall.

There can be little doubt that the Corridor and Colonnade continued east past the approach to the Propylaeum, and afforded a direct access to the Central Court and perhaps to the important *Megara* beyond it. Similar

<sup>1</sup> *B.S. Annual*, 1900, II. 70.

remains of blue slate paving, found above the floor levels below, marked a part at least of this continuation.

#### § 4.—THE SOUTH TERRACE BASEMENT AND ADJOINING ROOMS AND GALLERIES.

Reason has been given above for supposing that the upper part of the South Terrace consisted of a long Gallery or Verandah which formed in fact the continuation of the Corridor of the Procession and opened south, perhaps by a wooden colonnade, on a flat stretch of roof. Below all this were basement rooms and galleries, a part of which had been explored at the beginning of the season of 1900. The outer limit below is formed by a long line of fine gypsum blocks resting on a slightly projecting plinth of limestone slabs, which the renewed exploration of this front made it possible to follow in the direction of the south-west corner of the Palace. The fact that this wall showed very little traces of foundations strongly corroborates the view already expressed that, above, it merely supported an outer line of terrace roof.

Between this and the innermost supporting wall of the Terrace were, as already noted, remains of a central construction parallel to the inner and outer lines, apparently intended to support the colonnade of the verandah above. The main terrace wall, within this, though a good deal reconstructed in places, showed near its base layers of fine limestone blocks, the prevailing double axe symbol on which marked them as belonging to the earliest period of the building. This wall had at later times been buttressed up in several places by masses of very poor rubble masonry; as however the superincumbent structures which this had once helped to support no longer existed it was possible to remove this later work and expose the original surface of the inner terrace wall.

Already when the excavations were first begun there were visible in the face of this wall two narrow openings leading to small inner galleries. The removal of the later rubble coating now brought into view three more such galleries, one on the extreme east and two to the west of those already visible. It was clear that the two more westerly of these, one of which ran immediately under the Corridor of the Cupbearer, had given access to inner basement rooms which had apparently served as cellars. In contiguity to the most westerly of these there were now

opened out two small chambers of this class with which it had probably had communication. The floor level of these chambers, though somewhat over two metres below the upper Palace level at this spot, was at least a metre higher than that of the basement area of the South Terrace proper, and we must therefore suppose that there were originally steps up from the subterranean passage.

In the innermost of these chambers was found a group of plain clay vases, one of which was of exceptional interest from the fact that it bore on its shoulders an inscription which had been incised while the clay was still wet. The inscription, the first found here on a vase, is written in the ordinary linear script of the Palace—a slight variation being noteworthy in the third letter, here reversed and written like an S. In Figure 3 it will be found compared with typical forms as seen on tablets of Mycenaean date.

The vase itself on which this graffito inscription appeared was of a tall



FIG. 3.—LINEAR CHARACTERS ON VASE  
AND CLAY TABLETS COMPARED.

food. In this connexion it may be mentioned that an intaglio found on the site of Knossos shows a fisherman holding in either hand a fish and a polyp. In Crete, at least, fish formed a regular part of the Mycenaean dietary.

The types of the "rustic" vases found in this chamber derive great interest from the fact that they one and all represent a degenerate "Kamáres" tradition, although, as the character of the inscription shows, belonging to a good Mycenaean period. In this respect the Amphoras with double spout and mouth of oval section, the barrel-shaped vases with a

elongated form, except for its two handles recalling the shape of a Chinese jar. With it was found another similar vase (Fig. 4) and several other vessels. They were all of the same rough light-coloured clay and uncoloured, except that one two-handled jar was broadly streaked with a kind of triple spray of brown. At the bottom of a barrel-shaped vessel with tripod base, a type of which there were two or three examples, was found a grey deposit with fishes' vertebrae, showing that it had been used to store

tripod base, and a two-handled spouted bowl, are very characteristic. The cups exhibit transitional forms between the higher, often brilliantly painted, Kamáres type and the somewhat shallow receptacles of plain clay of which such vast heaps are found in the votive deposits of Mycenaean date in the Dictaeon Cave and elsewhere. It will be seen that large deposits of vessels of the same transitional class were found in the chambers and magazines of the east slope, and this "rustic" fabric may with great probability be regarded as the work of slaves and handicraftsmen of the old indigenous stock who lived within the Palace walls under

Vase with  
Rough Painting.      Type of Inscribed Vase.  
↓                          ↓



FIG. 4.—“RUSTIC” VASES SHOWING KAMÁRES TRADITION, FROM BASEMENT ROOM OF SOUTH TERRACE.

the Mycenaean lords. The appearance of a linear inscription on a pot of this class suggests many interesting questions. It must at least be taken as a proof of a considerable diffusion of the art of writing.

The comparatively early Mycenaean date of the contents of this store-room is shown not only by the Kamáres tradition in the forms of the vases but by certain structural phenomena. The vases lay in a layer of burnt wood pointing to the effect of a fire in this part of the Palace, and a little above the floor level on which they lay were the foundations of rubble walls belonging to the latest period of occupation. It is also to be observed that the gallery by which this chamber had been

originally reached from the basement of the South Terrace had had its mouth blocked at this same period by a rubble supporting wall.

Very different from this are the contents of the basement rooms and passages of the Southern Terrace itself. There the rubble walls inserted at a late period to buttress up the main south wall, together with certain contemporary chambers of the same poor construction as these buttress walls and partly built on to them, serve to bring out a very definite line in the archaeological stratification of the site. Along the foot of these later walls and in the small chambers, of which four were brought to light in the western half of the basement, were found a series of Mycenaean vases of a decidedly more recent type than those of the fine Palace style. In a room to the left of the entrance of the basement passage which runs immediately under the Corridor of the Cup-bearer sixteen Mycenaean vases were found in a more or less perfect condition, just as they were left at the latest moment of the occupation of this part of the site. The larger of these were placed on stone slabs, the smaller on pebbles. Other similar vases were found in the chamber adjoining this on the west. Among the classes represented, besides plain bowls and some rather coarse jars with flowing streak decoration, were the usual two-handled pedestalled cups of the champagne-glass form, single-handled jugs with waved and spiral pattern, and several "stirrup vases" (*Bügelkannen*) of high oval form and somewhat heavy fabric, with octopus designs, and large single-handled mugs with incurving sides of a type very characteristic of the tombs of Ialyssos.<sup>1</sup> It may be remembered that among the vases of similar ceramic style found in the passage of the same basement, a little farther east, was a three-handled pyxis, in form and ornament almost identical with one from the same Rhodian cemetery.<sup>2</sup> More than this, the character of the decoration on the vases from these basement chambers, and others of similar character found elsewhere on the site, closely corresponds with that of the Mycenaean vase fragments from Tell-el-Amarna, among which, however, the octopus design seems to be wanting.

The trend of this evidence is to take us to the Fourteenth century B.C. for these latest ceramic products of the site. There was no trace

<sup>1</sup> Furtwängler und Lösche, *Mykenische Vasen*, Pl. ix. (56, xxxv.). Two examples of similar types from Ialyssos are in the Ashmolean Museum. Another vase of this form from Nauplia is given, *op. cit.* Pl. xxi. 150.

<sup>2</sup> *B. S. Annual*, 1900, p. 8. Furtw. u. Lösche, *op. cit.* Pl. ix. (55, xxxii).

in the later chambers and passages of the Southern Terrace basement of any example of the finer Palace style. It will be seen, too, that the room of the Stirrup Vases (Bügelkannen), to the north of the building where similar ceramic types occurred, is now shown to overlay an earlier Mycenaean floor-level. Their sporadic occurrence indeed and proved posteriority make it more and more probable that at the time when these vessels were in use only a fraction of the site was still inhabited, and that the larger part of the Palace, together with the monuments of its most flourishing artistic period, was already in ruins.

On removing the later wall which blocked the entrance of the subterranean gallery that ran beneath that in which the Cup-Bearer fresco lay, an interesting find was made on the old floor level below. This was a haematite weight, with a flattened surface below, of the somewhat spindle-shaped form shown in Fig. 5. Its interest lies in the fact that it corresponds both in form and material with a class of early weights found both in Palestine and Egypt. An example from Samaria in the Ashmolean Museum and dating from the seventh or eighth century B.C., bears a Semitic inscription showing that it was a quarter *nsf*,<sup>1</sup> a kind of weight which recurs elsewhere in Palestine, but the name of which does not seem to be capable of a Hebrew derivation. It weighs 2·540 grammes (39·2 grains), so that the unit of which it is a quarter would have scaled 10·16 grammes (c. 157 grains), an amount which bears no obvious relation either to the Babylonian or the Egyptian standards. A haematite weight, however, of the same type from Egypt weighing 46·6 grammes (about 704 grains), fits well with the Egyptian series and may be regarded as the equivalent of half an "Uten" of the lighter class, or five "Kats." The Knossian example on the other hand, which is 12·6 grammes (195 grains),

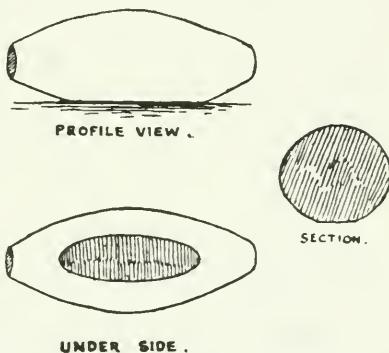


FIG. 5.—HAEMATITE WEIGHT.

<sup>1</sup> For the earlier readings of this weight, see *Palestine Exploration Fund Quarterly Statement*, 1894, pp. 220–231 and 284–287. Dr. M. Lidzbarski, whose reading is adopted in the text, has now clearly demonstrated that the hitherto doubtful inscription on one side of the weight is simply a blundered and subsequently erased version of what appears on the other side (*Ephem. für Semitische Epigraphik*, I. pp. 13, 14).

does not seem to belong to any of the above systems, though it almost exactly corresponds with the weight of the Aeginetan silver staters.<sup>1</sup>

### § 5.—THE SOUTHERN WING, AND ITS PAINTED RELIEFS.

To the east of the Southern Terrace basement three shallow steps appear leading up to what in some respects is a continuation of the same system, but which is here described as the Southern Wing of the Palace. This southern wing forms the end on this side of the great Central Court, formerly described as the East Court, and it is natural to suppose that it had some direct means of access from its southern as from its northern side. These steps are in fact in line with two short basement galleries or elongated chambers, with an intervening block, which suggest the further course of an upper passage-way leading to the Court. The Corridor that apparently ran along the Southern Terrace, and which formed, as we have seen, the continuation of the entrance Corridor from the west, would have naturally opened into this passage leading from the Southern Step-way. A direct corroboration of this view is indeed supplied by the fact that above the floor level of the basement space, over which the joint course of these two passages would have run, were found numerous fragments of blue slate slabs like those along the borders of the "Corridor of the Procession."

That there was thus direct communication both from the Western and Southern Entrances with this Central Court can hardly be doubted when the leading part played by this Court in the Palace economy is fully realised. The result of the most recent exploration has been to show conclusively that this great paved area was the real focus of the inner Palace life, just as the West Court represents the meeting point between Palace and City. It will be seen from the succeeding sections that the principal halls of the building lay on the eastern side of this Central Court. It may be further assumed indeed that a prolongation of the continued southern and western entrance ways ran along its south border and gave covered communication with the important *Megara* of the eastern quarter. The chambers actually un-

<sup>1</sup> Their full weight is given as 194 grains by Head (*Hist. Num.* p. 332). The value of the comparison is of course diminished by the great interval of time between the date when the weight was used and the first issue of Aeginetan staters. Another similar haematite weight found in Egypt, weighing 3 grammes (46·3 grains) may, however, be regarded as a fourth of the same unit as that represented by the Knossian example. Three leaden disks were found in the Palace which also appear to be weights. They weigh respectively 8·45 grammes (c. 131<sup>1</sup>/<sub>2</sub> grains), 22·05 grammes (c. 340 grains) and 42·7 grammes (c. 680 grains).

covered in the Southern Wing are merely basements, some of them of rough construction, but the longest of these, running from west to east along the borders of the Court, certainly suggests the former existence of a gallery above.

The architectural importance of the buildings that once overlooked the Central Court on the south side is indicated by decorated remains found in the western basement space on this side. Above the floor level of this room near its east wall, from about a metre below the surface, were uncovered a series of fragments of bas-reliefs in *gesso duro* representing male subjects. Like the bull-reliefs found in 1900, these plaster fragments were coloured. The first important piece brought to light showed the back and ear of a male head wearing a crown, the upper part of which consisted of a row of sloping *fleurs-de-lys* with a taller upright one in the centre. Of the others all had a forward slant except the hindmost, which was sloped in the other direction. The colours of the diadem itself and its offshoots were evidently intended to represent inlaid metal-work. The *fleur-de-lys* ornament recurred in the shape of a collar formed of links of this shape round the neck of a male torso found near the relief of the crown. The ornament itself is typically Mycenaean, and its derivation from the pure lily type with the stamens attached may be traced on the gold-plated inlaid dagger<sup>1</sup> from the Fifth Akropolis Grave.

Of the natural lily as a Mycenaean hair ornament we have an example in the coiffure of the Goddess and her attendant handmaids on the great signet from Mycenae, who wear this flower in the front of their hair. A natural wreath of this kind no doubt served as the prototype of the crown before us. But was the personage who wears it in this case royal or divine? The processional frescoes, with their apparently tribute-bearing youths, and the analogy that they present to contemporary Egyptian monuments in which the representatives of various races bear tribute to Thothmes III., suggest that in these reliefs, which may well be a more elaborate continuation of the same class of subject as those of the Corridor of the Procession, we have also to do with human personages. Among the frescoes in high relief found in a chamber on the eastern slope is an arm holding a pointed cup like that borne by the Cup-bearer of the fresco,<sup>2</sup> a fact which strongly supports this view. These analogies afford a real presumption that in this crowned head we see before us a Mycenaean King.

<sup>1</sup> Perrot et Chipiez, *Histoire de l'Art*, vi. Pl. xix.

<sup>2</sup> See below, p. 89, Fig. 20.

It is probable that a part of a relief of a blue mantle with curving folds, crossed by fine wavy incised lines, which was found near it, belonged to the same figure.

The male torso with the lily collar (Fig. 6) belongs to another figure. It is executed in the same low relief, and in spite of certain conventional peculiarities, such as the narrow waist and over-elongated thumb, shows an extraordinarily advanced style of modelling. The pectoral, deltoid and biceps muscles and others of the fore-arm are very accurately rendered. In addition to other minor fragments the thigh and the greater part of the leg of another figure were also found near the torso. The buttock is but slightly prominent, but great stress is again laid on the muscular development, recalling the Kampos statuette on a larger scale. The reliefs are all life-size, and the skin was originally coloured a reddish brown like that of the men in the frescoes, though this has much faded. In the case of the male torso (Fig. 6) the lilies of the collar seem to have been attached in separate pieces coloured to represent metal work. This applied decoration has, however, become detached leaving the surface below printed, as it were, in its original ruddy hue against the faded surface of the rest of the torso. The attitude and clenched hand may suggest a boxer.

#### § 6.—ROOMS OF THE CLAY SEALS AND “PRIEST FRESCO.”

Among the basement spaces behind the southern steps already noted was a small room containing a large number of broken impressions of clay seals. As these occurred at various levels it is probable that they were originally derived from a room above this basement. No inscribed tablets were found with these, so that they do not seem to have been used here, as in other cases, for sealing up chests containing such clay documents. The numbers of these seal impressions, on the other hand, and the frequent repetition of certain types seem to show that correspondence on non-perishable material, such as the palm-leaves said to have been used in Crete as writing material, was here both sealed and opened. Nodules of clay were found with the impressions which had evidently been prepared to supply the material for the sealings, and some small bits with partial impressions of intaglios were probably due to the preliminary and tentative use of the signets to test the consistency of the clay. A certain number of impressions belonging to the same deposit, for they repeated several of the same subjects, occurred in two neighbouring chambers to be described as



the room of the "Priest Fresco" and "The Lapidary's Workshop." In order to collect these more or less fragmentary seals, prolonged and careful work with the sieves was necessary.

The most frequent types found were animals, bulls or oxen, wild goats, rams or moufflons. A design exhibiting a couchant ox, looking back at a tree, recurred on eleven fairly preserved examples. Some of these seal impressions, as for instance one showing a dog with his head turned back looking upwards and with a collar round his neck, another with fish and polyp, another with a lion leaping on a lioness, and a fragment showing a man looking at the head of a magnificent bull, represent the highest level of Mycenaean glyptic art. To these must be added the half of an impression of an extraordinary large lentoid gem, upon which are seen waterfowl together with wavy lines indicating water, and a naturalistically drawn reed.



FIG. 7a.—CLAY SEAL-IMPRESSION WITH MINOTAUR (1).

Some very curious examples show a flounced female figure of small dimensions holding what appears to be a string with the other end attached to a swallow, to which another swallow flies. Among religious subjects may be noted a Mycenaean Daemon holding an ewer and an impression, evidently from a gold signet of the usual type, showing a Goddess and votary. Two fragments exhibit what appears to be a man clad in a kind of cuirass, with his body bent towards a monster seated on a cross-legged seat, with the legs of a man, but the head, fore-legs and the upper part of the body, including the tail, of an animal resembling a calf (Fig. 7a). This approach to a Minotaur

derives additional significance from the fact that several gems have been discovered in Crete—two from the site of Knossos—with the legs of a man and the head and fore-legs of a bull (Fig. 7b, c). The type of the Minotaur already existed in Mycenaean Crete, where it was one of a series of similar monstrous forms, such as the man-stag, the man-goat, the man-lion, and the eagle-woman.<sup>1</sup>

<sup>1</sup> Gems with these types are known to me from various parts of Crete. Much new light has been thrown on these monstrous forms by Mr. Hogarth's discovery of Mycenaean seal impressions at Zakro (see below).

Besides the actual seal impressions from this deposit there came to light<sup>1</sup> a clay object of a somewhat different class which strongly suggests a more seamy side of the high civilisation here represented. This was a clay matrix formed by making a stamp from the impression of an actual seal, and which could thus be itself used as a signet for making counterfeit impressions of the same kind. The original of this was evidently a large gold signet-ring of a kind resembling, both in its form and the character of its subject, that found in the Akropolis Treasure of Mycenae. That this, like the other, was a royal signet is highly probable, and what adds to the interest of the matrix is that several clay impressions taken from the original ring were subsequently found in association with a very important deposit of inscribed clay tablets in the East-West Corridor on the eastern slope. These various examples allow of the complete reproduction of the design, which displays a Goddess seated in an attitude closely recalling the Goddess on the ring from Mycenae, while a female votary holds out a two-handled cup to her, immediately above which is an orb evidently representing the sun. Behind this female figure is another—half turned away—apparently performing an orgiastic dance. The group is placed on a kind of terrace amidst rock-scenery. It would seem that the clay matrix was actually used for forging the royal signature.



FIG. 7b AND 7c.—GEMS FROM KNOSSOS SHOWING MINOTAUR (¶).

In the room where this matrix was found, east of that of the seal impressions, were two floor levels. Beneath the uppermost of these, fragments of painted stucco came to light, including a fresco fragment of great

<sup>1</sup> The clay matrix was found in the "Room of the Priest Fresco."

interest. It showed the heads and upper part of the body of two small male figures, each of whom was clad in a kind of white stole, with a broad band running down from the shoulder. In front of them was the upper part of a Mycenaean column, with a very prominent torus to its capital. The column was coloured yellow, perhaps intended to represent gilding.

The stoles of the two figures, very different from the ordinary Mycenaean garb, convey to the modern mind a sacerdotal association. They may be compared with the long robes worn by a certain class of male figures seen on Mycenaean signets, of which several examples have been found in Crete, including an impression of one found in the Palace itself.<sup>1</sup> On the latter, as in some other examples<sup>2</sup>—one from Knossos itself—the figure carries a single edged axe of the Egyptianising and also “Hittite” type found in the Vapheio Tomb.<sup>3</sup> On another Knossian gem<sup>4</sup> he holds a bird, apparently a duck—having possibly a votive significance. On one of the finest of the Vapheio gems he is seen leading a griffin. The associations here seem to be distinctly ceremonial and religious, and on the fresco fragment this element<sup>5</sup> is certainly suggested by the column in front of the figures.

### § 7.—THE LAPIDARY'S WORKSHOP.

In an adjoining basement room to the south of the room of the “Priest Fresco” were a variety of objects showing that it had been used as a workshop or workman's store. These relics also partly extended over the neighbouring basement spaces. Here were found a number of peg-like objects, mostly with a groove round the top, of marble, bone and steatite, jasper and steatite studs, shell beads, low, cylindrical stone objects which had the appearance of draughtsmen, and bone pieces, apparently also connected with a game. Many of the objects were in an unfinished state, and the materials for making others were present in a more or less rough or purely natural state, as, for instance, a flat oblong piece of jasper chipped round at the edges, and crystals resembling beryl.

In the more southerly of these two workrooms was found a small *pithos* filled with small burnt beans. These were at once recognised by the workmen as *κυκιά Μισηριωτικά*—Egyptian beans—a dwarf kind at

<sup>1</sup> Beneath the doorway of the Room of the Stone Drum (described below p. 32).

<sup>2</sup> In the Candia Museum.

<sup>4</sup> In my own collection, acquired in 1894.

<sup>3</sup> 'Εφ. 'Αρχ. 1889, Pl. viii. 1.

<sup>5</sup> 'Εφ. 'Αρχ. 1889, Pl. x. 32.

present imported into Crete from Alexandria, and of which there is an abundant supply in the Candia market. Remains of another pot were also found with carbonised seeds of a smaller kind. The northern part of the other workroom had also been used as a store for grain. It was covered at a depth of 260 m. from the surface with large quantities of a carbonised cereal, apparently wheat, extending in a thin stratum. The wheat had probably been heaped on the floor of this room, as there was no trace here of a special recipient.

#### § 8.—RESTORED PLAN OF A WESTERN UPPER MEGARON, AND OF THE HALL OF THE JEWEL FRESCO.

That the Southern Propylaeum, standing as it evidently does in direct connexion with the noble entrance Corridor from the west, should have formed the avenue of approach to some important *Megaron*, is on the face of it extremely probable. Unfortunately, last year's excavations showed that the area immediately beyond it had been much denuded, and its relation to the quarter of the building to the north of this remained obscure. From the exposure of a good deal of the primitive clay deposit of the Neolithic settlement in the intervening space, the name of "Central Clay Area" was provisionally applied to this plot in last year's Report.

But subsequent observations have led me to modify this conclusion. On the eastern margin of the area there are visible in position slabs of good paving, which seem to indicate that the whole of the area immediately bordering on the Propylaeum had originally been paved. That the slabs should have been removed over the greater part of the space in question agrees with what is now seen to have occurred on a larger scale in the great Central Court, ready-made paving slabs affording an obvious temptation to later owners of the soil. It has, therefore, been thought better to substitute for the area the name of "Court of the Altar" from what appears to be an altar-base visible in its eastern bay.

Dr. Dörpfeld, on visiting the remains of the Palace, was much impressed with the view that the Southern Propylaeum must have formed the direct avenue of approach to important halls to the north, and suggested that part of the denudation visible in the "Court of the Altar" was due to the removal of a ramp or step-way leading to a first-floor storey beyond. Of the two alternatives the former existence of a broad flight of steps is much

more in accordance with the practice of the "Minoan" architects of Crete, as is now conspicuously shown by the noble flights of the Phaestos Palace. It is also highly probable that the same agencies that were instrumental in removing so many of the paving slabs may account for the disappearance of a flight of stone steps.

It was already pointed out in my former Report that the flight of steps with a central column base running upwards from the Central Court, in juxtaposition with the downward steps of the Throne Room Antechamber, must have led to an upper hall or Megaron. Of the existence of a long upper hall at this point new evidence was, in fact, brought to light by this season's excavations. The further question now arose: Was not this again in connexion with a second upper Megaron to the south of it,—a Megaron in turn communicating with the Court of the Altar and the Southern Propylaeum by means of the broad flight of steps which *ex hypothesi* existed on that side?

Of the existence of an upper storey in this part of the Palace there has never been any doubt. At various points along the upper part of the basement walls were blocks and slabs belonging to the lower course of the upper walls or the pavement of its chambers. This year, after a heavy shower of rain, I noticed a flat block in this position with the impress, clearly brought out in black by the moisture, of two round columns side by side, about 45 centimetres in diameter, that had rested on it, the black colour being probably due to the burning of the wood of which the columns were composed.

That a columnar hall had existed on this upper level was made probable by two other circumstances. The two square pillars marked with the double axes would find their most natural structural function in the support of corresponding columns on the upper storey,<sup>1</sup> while a pier halfway

<sup>1</sup> The function of supporting does not necessarily conflict with the view that pillars of the double axes were of a consecrated nature. It coincides in fact with an aspect of the ancient cult treated of in my monograph on *Mycenaean Tree and Pillar Cult*, § 17, "The Pillar of the House." The criticism made by Mr. W. II. D. Rouse (*J.H.S.* xxi. p. 273), that there are other signs besides the double axe, and that therefore undue stress should not be laid on this, is answered by the exceptional position which the double axe holds among the Palace signs, of which the most recent excavations afford fresh corroboration—witness the Megaron of the Double Axes—(see p. 112 below), by the occurrence of the double axe in its votive form as a vase ornament of the "Palace Style" (see p. 53 below), and by the fact that several of the most constantly recurring among these signs, such as the star, the trident, the branch, the cross, and the sistrum (?), are also traditionally associated with various divinities. It is probable that some of these signs grouped together on the hieroglyphic seals represent invocations of a religious kind. The recurrence of the Double

## KNOSSOS. PLAN SHEWING RESTORATION OF UPPER MEGARON, &C.

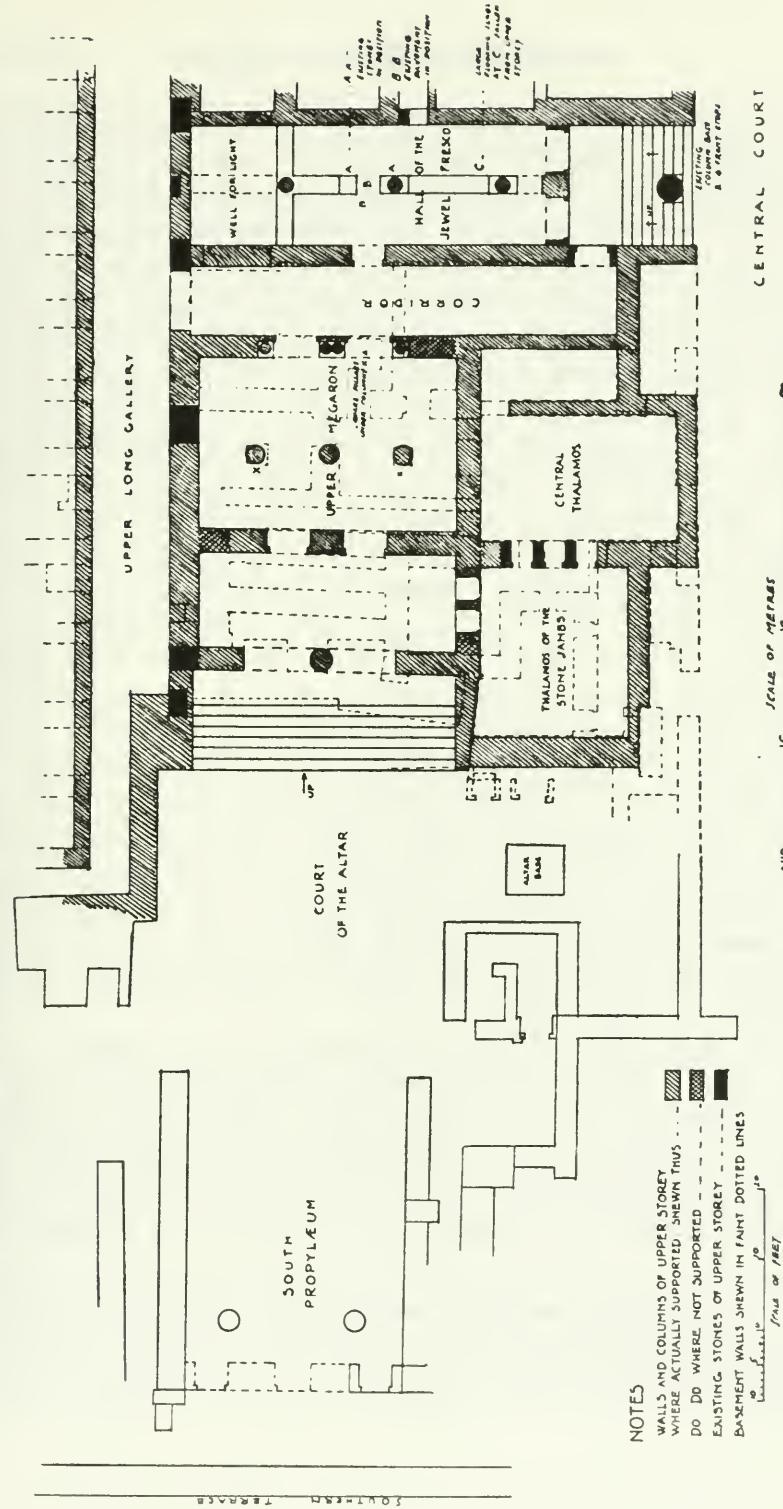


FIG. 8.—RESTORED PLAN OF WESTERN UPPER NEGARON AND THE HALL OF THE JEWEL FRESCO.

between them seems to have been devised for the support of a third column or pillar above. More than this, two column bases were actually found above the floor level of the adjoining room named from them, which in all probability had once been *in situ* above these neighbouring supports.

Taken in connexion with the lines of the surrounding basement walls, and the blocks of upper walling still visible on them, this triple line of columns gives the key to a very probable restoration of the plan of an upper Megaron opening on the hypothetical steps to the south as shown in Fig. 8. Its front almost centres on the opening of the Propylaeum beyond.

It will be seen that my restored plan does not correspond with that of the type of Megaron with which we are familiar at Tiryns and Mycenae, with its quadruple group of columns clustering round the hearth. But it exactly answers to the "Minoan" halls of Crete as seen in the Palace of Phaestos, and represented at Knossos itself in the halls now excavated on the eastern slope. The method of construction answers to a more southern type, in which the hearth no longer forms the fixed centre of the Megaron, warmth being probably supplied when necessary by some movable brazier like the modern Greek *θερμάστρα*. A central roof-opening, which could also serve as an outlet for smoke, being thus unnecessary, it was found more convenient to have the opening, which was still necessary for light, at the further end of the hall. This broad well for light was probably provided above with a kind of lantern or clear-storey as a partial shelter from rain.

A comparison of the restored plan on Fig. 8 with the great Megaron at Phaestos shows how nearly the outline of the Knossian hall, as suggested by the piers for the columns and the basement wall-lines, corresponds with the other.

A further parallelism with the Phaestian plan is supplied by the fact that along its right-hand wall, entering from the front, are some smaller rooms or *θάλαμοι* in communication with it. These rooms are apparently three in number, namely, a central chamber over the Room of the Column Bases, with a small annexe to the north, and another fair-sized chamber over the Room of the Chariot Tablets. The access to this suite of

Axe and other similar signs at Phaestos does not weigh against this view. The "Houses of the Double Axe" were probably many, and the name of Labyrinth may itself have recurred,—in fact, Gortyna as well as Knossos claimed one. The various cults associated with the Minoan dominion at Knossos would be largely common to the other princely centres throughout the island. I have purposely reserved a fuller discussion of the signs on the Knossian blocks till the evidence is complete.

*θαλάμοι* from the upper Megaron seems to have been by means of a door opening on the central of these chambers. The remains of the upper floor, with the jambs of a double doorway leading from this central *thalamos* to the room to the north of it, were still preserved *in situ*. Owing to this it has been named on the plan "Thalamos of the Stone Jambs."

The most uncertain detail is the bi-columnar arrangement shown on the slab already described. This slab stands exactly on the middle line of the Megaron, and it seems safest to suppose that there was here a double doorway in its back wall, each of the two columns of its central division answering to another on the other side of the respective doorways. The doorways thus indicated open on what from the basement wall-lines seems to have been a cross-corridor running from the portico of the elongated Hall beyond to another passage forming an upper gallery of the Long Gallery of the Magazines. In this abutment of the back of the Megaron on two galleries running at right angles to one another, we find again a certain correspondence with the arrangement of the great Megaron at Phaestos.

The Corridor on which the upper Megaron of Knossos opened at its inner end was bounded on its northern side by the long Hall already mentioned. The width of this hall is clearly marked by that of the steps at its eastern end leading down to the Central Court, and its northern boundary thus rests on the south wall of the Throne Room and the rooms in connexion with it. Along the centre of the oblong space thus defined, in a line with the column base on the steps, is another basement wall which afforded the necessary support for piers and columns running along the middle of the long upper chamber. More than this, on the top of this wall several blocks and slabs of the upper structure are still preserved *in situ*, which seem to represent the remains of a raised stylobate with a paved passage-way across it. To the borders of this some remains of the original gypsum paving slabs of the body of the hall also clung, clearly showing the original floor-level. In the basement chamber immediately behind the impluvium of the Throne Room, some fine black slabs were also found in a half fallen position. This is the finest paving that has come to light anywhere in the Palace.

The inner line of the portico, which must have had a double opening, is indicated by a cross line of basement wall, and the western termination of the stylobate by another. At this point no doubt began a light opening of

the kind already referred to in the case of the upper Megaron. Analogy and the elongated shape of the covered part of the chamber make it reasonable to assume that the stylobate supported three wooden columns. It is to be observed that the paved opening noticed in this as probably a passage-way centres with the eastern of the two back entrances of the upper Megaron and a line of doors and openings beyond. This circumstance makes it probable that the doorway by which this hall communicated with the Corridor running along its southern border would have opened opposite this, and thus have centred with the Megaron door in the opposite wall of the Corridor.

Of the brilliant and beautiful decorative designs that once adorned the walls of this upper hall some traces came to light in the shape of numerous painted stucco fragments found above the floor level of a basement magazine situated beneath its central part, to be described below as the Magazine of the Vase Tablets. Among the fresco designs painted on the flat were pieces apparently belonging to a border, including a not infrequent wave and wavelet pattern, and a very beautiful design of an olive or myrtle spray with dark brown and reddish foliage. Another fragment is still more remarkable. It represents the thumb and forefingers of a man, beautifully modelled in high relief, and of the conventional reddish colour with a white nail, holding the corner of a blue robe and the end of a beaded chain, which from its yellow hue is evidently intended to be of gold. Unlike the fingers, these are painted on a flat surface. The jewels consist of round beads with pendants in the shape of little negroes' heads, of the same yellow hue but with curly hair outlined in black, and with large rings linked in each other and coloured red hanging from their ears. The gold ornament appears to be attached to the corner of the blue robe. A dark object in connexion with it may possibly represent a lock of human hair, and the coloured fragment seems to be part of a life-sized relief of a man fastening a robe by means of the gold agrafe about the shoulders of a personage of distinction. The hand and jewels present a striking analogy to a fresco fragment found near the north portico, showing the very graceful fingers of a woman holding the end of a necklace of dark, round beads. In the present case the golden material of the necklace, coupled with the negroes' heads, seems to point to Nubia—the Egyptian "Eldorado"—as the source of the precious metal.

This interesting fragment suggests that the walls of the long Hall

from which it was undoubtedly derived, and to which the name of the Hall of the Jewel Fresco may be conveniently given, was once adorned with a series of figures like those of the western Corridor, but in this case, as in the South Gallery described above, executed in fine relief.

#### § 9.—SUPPLEMENTARY OBSERVATIONS IN THE REGION ABOUT THE ROOMS OF THE COLUMN BASES AND OF THE PILLARS.

This season's work brought with it certain modifications and additions to the plan of the part of the building of which the "Room of the Column Bases" forms the central point. This Room stands to this part of the Palace in much the same relation as the antechamber of the Throne-Room to the adjoining area. It serves as a kind of forehall to the rooms behind and beside it, and the analogy is strengthened by the fact that here too the access to the Central Court was by means of a short flight of steps, and that on the north wall of the room was a stone bench of the same kind as those flanking the Antechamber of the Throne Room.

The "Room of the Great Pithos," to which that of the "Column Bases" gave access on the north, was found to open on a second well-paved store chamber<sup>1</sup> in the centre of which were two sunken cists, resembling the "Kaselles" of the Magazines but without a second recipient below. The white-faced stucco on the south wall of this room showed stripes of red below and above, forming a kind of dado and cornice band similar to that of the Magazines and Long Corridor. This basement chamber may be called for distinction the "Room of the Two Cists."

On the west side of the "Room of the Column Bases," two interesting developments took place. What had seemed to be a blind alley opening on the south-west corner of the hall proved to be in reality continuous and to supply a thoroughfare to the Long Gallery by the passage called in the preceding Report the Corridor of the House Tablets which is in fact a section of the same gangway. This circumstance refutes the view<sup>2</sup> that communication between this part of the Palace and the Long Gallery was at any time interrupted.

It further turned out that the doorway leading from the Hall of the Column Bases to the East Pillar Room was flanked by a second. The

<sup>1</sup> The floor level here was 2·10 m. below the surface. At 1·30 m. down was a deposit of burnt wood.

<sup>2</sup> Suggested in my previous Report, p. 26.

double entrance adds to the importance of this inner room and certainly enhances the probability that the pillars so significantly marked by the double axe had sacred associations. In this connexion moreover two additional facts are to be noted. On either side of the East Pillar is an oblong receptacle, too shallow to have been a store place like the "Kaselles" but well adapted for offerings or libations. On the other hand the floor round the West Pillar showed a regular border and central square like that of the Throne Room and indicating that in this case as in the other it had been adorned with varied colouring.

#### § 10.—RECESS OFF CENTRAL COURT WITH SEAL-IMPRESSIONS SHOWING LION-GUARDED GODDESS AND HER SHRINE.

On the front line of the Central Court between the "Room of the Column Bases" and the steps of the "Hall of the Jewel Fresco" is a curious oblong recess with a side niche having a cement floor at its south end. Its depth is too shallow for it to have been an ordinary room. On the other hand the finely cut limestone blocks by which it is flanked and partly faced, as well as its conspicuous position in the great Court, indicate that there was here an important structure.

The upper surface had been only partly excavated at this point during the campaign of 1900 owing to the need of leaving a passage way for barrows. On removing the superincumbent earth early in the present season, a floor level came to light about 70 centimetres below the surface covered with a deposit of burnt wood. In this layer, by means of careful sifting, was found a series of fragments of seal impressions.<sup>1</sup> At first sight they appeared to represent more than one sphragistic type, but a careful examination revealed the fact that though the fragments belonged to a series of clay sealings, they had all been impressed by the same signet. Although these various impressions existed only in a fragmentary state it was thus possible to complete one by another, and by means of the overlapping pieces to recover the original design in its entirety.

The seal type thus restored in all its details (Fig. 9),<sup>2</sup> presents a

<sup>1</sup> Two or three scattered fragments belonging to the same deposit were also found within a radius of a few feet; one in the chamber immediately to the west, another on the top of a wall on the north side.

<sup>2</sup> The figure is from M. Gilliéron's careful drawing of the overlapping fragment as arranged according to a key sketch of my own.

religious subject of great interest. The design, as is usual with such religious compositions, had evidently been engraved on the bezel of a gold signet ring of the same kind as that counterfeited by the clay matrix described above.

The central figure of this design is a female Goddess in the usual Mycenaean garb, standing on her sacred rock or mountain peak, which represents, in fact, her aniconic shape, and upon which her two lion guardians and supporters rest their fore-feet on either side. In her hand she seems to hold out a kind of weapon, and in front of her stands a male votary in the act of adoration. Behind her is her shrine with sacred columns, in

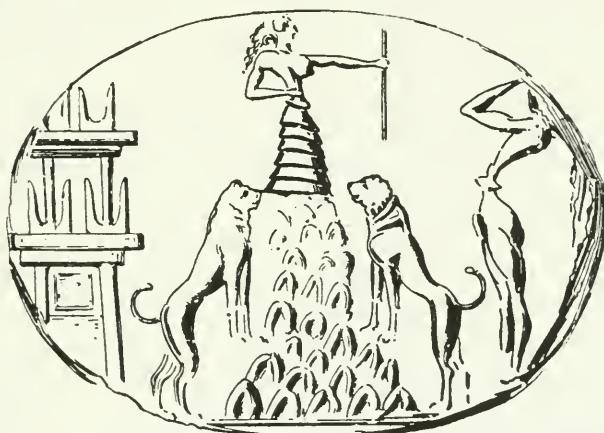


FIG. 9.—IMPRESSION OF SIGNET-RING, SHOWING LION-GUARDED GODDESS AND SHRINE (§).

front of which, and again on the entablature above, the "horns of consecration" are clearly visible.

To myself this discovery was of special interest, inasmuch as it completes and amplifies the evidence I had collected of a series of Mycenaean seal-types referring to a Goddess,—the prototype of the later Kybelè and Rhea,—with lion guardians, sometimes standing herself between them, sometimes represented by her aniconic image in the shape of a column or base.<sup>1</sup> A seal impression found in a chamber in the eastern quarter of the Palace shows the simple type of the Goddess between two lions. In the present case we see her,—and it must be

<sup>1</sup> Mycenaean *Tree and Pillar Cult* § 22.

remembered that, in Crete too, there was an "Idaean Mother,"—standing on her sacred peak. The "horns of consecration," on the other hand, placed before the columns on the shrine behind her and again on its entablature show that the columns here represent the artificial pillar forms of the cult object as opposed to the holy mountain itself on which the Goddess stands.

We have here, in fact, examples of both the handmade and the natural objects of the divine possession. Either the pillar or the sacred peak itself could be equally worshipped.

The shrine itself has a special importance from the parallel it presents to that shown on the small fresco found in the Palace in 1900. In this case, indeed, we have naturally to take into account that artistic "short-hand" which characterises the gem engraver's craft. The shrine here is reduced to an entablature with columnar supports, and the lateral wings are omitted. But the basement storey below and the twin columns with the sacral horns in front of them are features of correspondence which show that we have to do with essentially the same type. It is probable that if the roof of the shrine on the fresco had been completed we should have seen additional "horns of consecration" resting upon it as in the case of the shrine on the signet. This feature, in fact, recurs on the wall-top of a fragmentary fresco apparently depicting another sanctuary.

These correspondences, and the further proofs of the cult of a similar Goddess supplied by other seal impressions found in the building, establish a real presumption that the shrine on the wall-painting was in part at least dedicated to the cult of the same Mycenaean divinity. It is, indeed, by no means improbable that the deposit of seal impressions relating to this cult in this small chamber at a prominent point of the front of the great Central Court may give a clue to the actual site of the miniature temple depicted on the fresco. It is clear indeed from the basement blocks visible below it, and the crowds in the open space in front of it, that the original of that shrine was reared on the side of a Court.

In this connexion it is interesting to recall that the tradition of a very old cult of Rhea survived at Knossos to quite late times. Diodoros records that in his day, there were still visible on Knossian soil (once, as he tells us, inhabited by Titans), the site and foundations of the House of Rhea and a very ancient Cypress Grove.<sup>1</sup>

<sup>1</sup> Diod. Sic. lib. v. c. 66.

**§ II.—SUITE OF SMALL ROOMS BELONGING TO THE WOMEN'S QUARTER.**

Owing to the necessity of keeping open passage-ways above, a zone immediately to the north and west of the Room of the Throne and its annexes had been left almost completely undisturbed during the first season's work. The excavation of this area has now brought to light a series of small rooms in communication with one another and presenting certain common features.

The first of this suite of small chambers is the room already opened in 1900, approached by a doorway leading from the Corridor of the Stone Basin and to which the name of "Room of the Cupboard" was given from what appeared to be a small closet in its western wall. This cupboard, however, turned out on closer examination to be a blocked doorway leading to the rooms beyond. It will be remembered that the limestone slab of a seat was found on the floor of this room, hollowed out to the form of the body, like the throne, but which from its ampler dimensions I had already been inclined to regard as a woman's seat.<sup>1</sup> This conclusion has, as will be seen, found a striking corroboration from the discovery in another compartment of the same suite of rooms of a seat of similar proportions fixed on the floor, and therefore belonging to a person of the female sex, the Mycenaean women, as distinguished from the men, being often depicted in a more or less squatting attitude.<sup>2</sup> It may be useful, therefore, as the name of "the Cupboard" no longer applies, to distinguish this small chamber as the "Room of the Lady's Seat."

The charred woodwork of the blocked doorway between this and the room immediately to the west was well preserved and had contributed to give its shallow recess the aspect of a cupboard. Under the rubble partition with which it was blocked were found some fragmentary remains of linear tablets which showed that the blocking had taken place at some period after the time when these clay documents had come into use. The small room thus entered had along its northern wall a low stone bench.

<sup>1</sup> *B. S. Annual*, 1900, pp. 38, 42.

<sup>2</sup> Compare, for instance, many of the miniature frescoes of the Palace, and the representations of Goddesses on the signets. The Minotaur-like monster, on the other hand, seen on the seal impression already described, is seated on a kind of throne. The "Chariot tablets" of Knossos often show a high seat in the car, recalling the throne in outline.

On the threshold of the doorway leading from this "Room of the Stone Bench" to that adjoining it to the west was found the clay impression with the axe-holding, priest-like figure described above.<sup>1</sup> This room presented a most enigmatic feature. About 1·50 metres from its west wall and 1 metre from that to the south stood the drum of a column 69 centimetres in height and the same in diameter. It rested, without a base, on the cement floor and its summit was at a depth of a metre from the surface. The eastern half of its flat top surface was cut out into two shallow quadrants, as seen in Fig. 10, the base of these running almost exactly towards the magnetic north. Against the west wall of the room near the

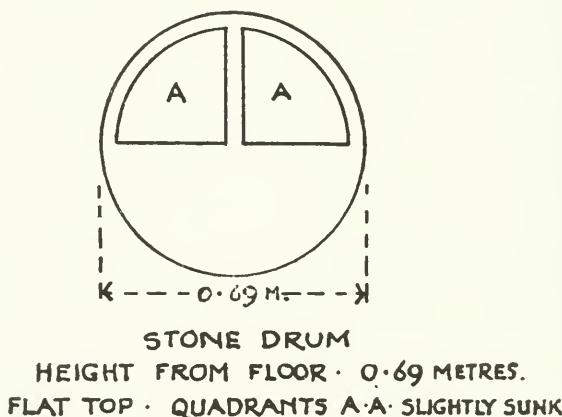


FIG. 10.

column drum was a thin gypsum slab of semicircular form, standing about the same height as the top of the pillar with its base cemented into the wall plaster.

It is evident that the purpose of the column drum and the semicircular slab was in some way connected. They must both have been made use of by a person in a standing position. The two quadrants of the column drum and the exact correspondence between its height and diameter, might well suggest some kind of instrument. It must, however, be borne in mind that the quarter in which this curious object made its appearance was certainly one set apart for women. The analogy of another room of this series to be described below, containing a table and sideboard of culinary

<sup>1</sup> See p. 20.

aspect certainly suggests that here too the object in view was of a domestic kind.

The "Room of the Stone Drum" opens on its western side upon an elongated chamber or small gallery divided into three compartments by projecting buttresses. These buttresses end in good limestone pillars, the upper stone of the second of which is cut down from a larger block, bearing the window sign characteristic of the first period of the building.

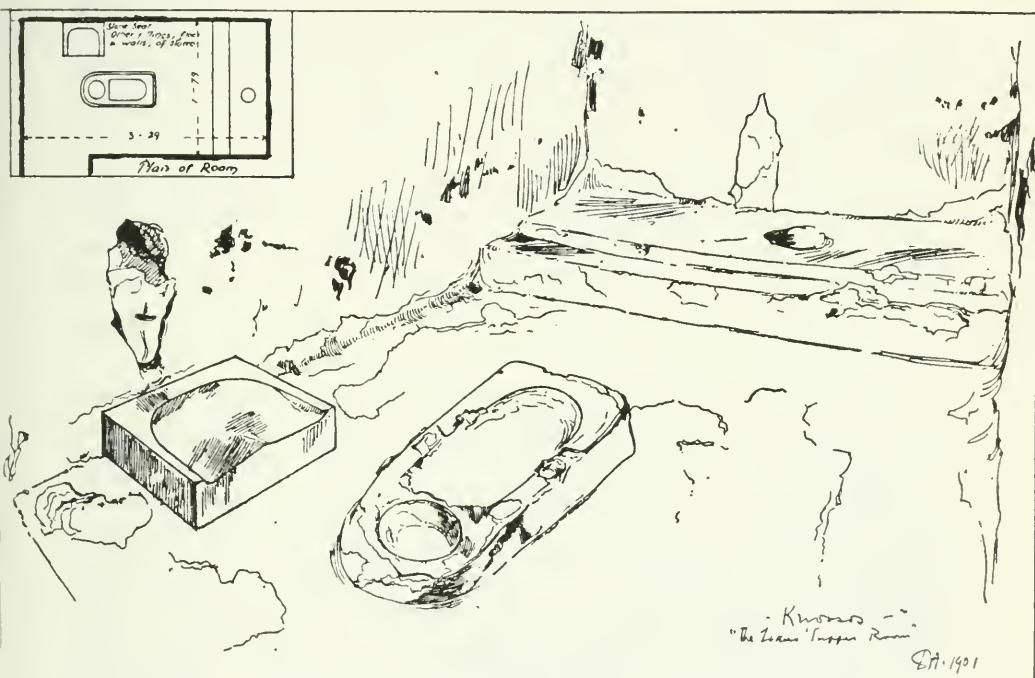


FIG. II.—VIEW OF ROOM SHOWING PLASTER TABLE AND DAIS AND WOMAN'S SEAT.

This tripartite chamber leads to another small room of considerable interest, which forms the termination of the suite with which we are dealing. Against the wall of this chamber, opposite the door (as if for better light), is another low limestone seat of the same form and approximate dimensions as the woman's seat, noted above in the first room of the series. In this case, however, it is a fixture firmly cemented into the white plaster that forms the flooring of the room. This seat is raised only 13 centi-

metres above the floor, its width is '55 centimetres and its depth '46. These figures become very significant when set beside those of the throne, the seat of which is 58 centimetres high, 45 wide and 32 deep. As already observed, the difference in capacity is naturally accounted for by that of the physical development of the two sexes, while the discrepancy in height is owing to the methods of sitting in vogue respectively among the Mycenaean men and women.

In front and on a level with the seat was a low table rounded at one end and square at the other, the surface of which was formed of a thick coating of plaster (Fig. 11). Like the seat, its table was embedded in the cement of the flooring. At the end nearest the seat was a bowl-like hollow, the other part being occupied by a shallow elongated depression rounded at one end. There can be no doubt that this low table was designed for some kind of manual work performed by the female occupant of the stone seat. The fact that the surface of the table was formed of plaster excludes the possibility that any kind of grinding or pounding was performed here. The material employed must have been plastic or partly liquid, and it is natural to suppose that the receptacles were used for some preparation of a culinary nature.

Along the inner wall of the room ran a kind of dais rising in a double step, the surface of which was covered with the same fine hard white plaster as the table. It is possible that the lower step served as a kind of bench like that along the wall of the second room of the present suite, while the upper may have been used as a shelf or side-board. The centre of this shelf was hollowed into a bowl-like receptacle like that of the table. Remains of the same fine white plaster covered the walls of this small chamber. The room itself, to which the name of the "Room of the Plaster Table" may be given, seems to have served as a kind of small kitchen.

The distinctive seats found in the first and the last of this continuous suite of small rooms, put it beyond reasonable doubt that we have here to do with a section of the Women's Quarter of the Palace. These rooms are entirely separated from those of the Throne Room system proper, or the Megaron of the Jewel Fresco which overlooked it. They form one long "apartment," the single entrance to which is supplied by the door opening on to the "Room of the Lady's Seat" from the "Corridor of the Stone Basin." But this passage communicates on the other side with the group

of chambers, some of them now ill-defined, to one of which belongs the miniature fresco with its remarkable illustrations of Mycenaean Court ladies. It is possible that the Women's Quarter extended on this northern side of the Corridor and included an important Megaron.

A natural question arises as to the lighting of the suite of women's rooms above described. The evidence of various avocations performed in these rooms certainly tends to show that their occupants were not left in darkness. Light may have been obtained for the first two rooms of the suite either by means of a kind of clear-storey above the level of the roof of the Throne Room, which does not seem to have had any other chamber above it, or from the Corridor of the Stone Basin, which may have been partly open. But the question of the lighting of the other chambers of the series involves greater difficulties, since the adjoining rooms at the back of the Throne Room seem to have had an upper storey. It is possible that the passage way of the tripartite chamber between the Room of the Stone Drum and that of the Plaster Table was left open.

#### § 12.—THE WALLED PITS: SUGGESTED PALACE DUNGEONS.

The mud-built North Wall of "the Room of the Stirrup-Vases" ("Bügelkannen") excavated last year having collapsed, a good opportunity offered of exploring the layers underneath. A few centimetres below the floor level with which this wall was connected another Mycenaean pavement came to light and some inscribed tablets resting upon it. This proof that the Room of the "Stirrup-Vases" belongs to a late Mycenaean period is interesting in connexion with the painted vases found in position in it. The "Stirrup-Vases" themselves with their rather coarse octopus designs belong to the same somewhat decadent ceramic class as the vases found in the chambers and galleries of the South Terrace basement. They are far inferior to the products of the fine "Palace Style."

Immediately below this second floor level and about 50 centimetres below that of the Room of the "Stirrup-Vases" two parallel lines of wall with an interval of 1·60 metres between them made their appearance, which continued east under the neighbouring Room of the Flower Gatherer,<sup>1</sup>

<sup>1</sup> The floor of this room was also found in a partly destroyed condition. Here too are two floor levels; (1) a good white cement floor 1 metre below the surface, (2) another cement floor 40 centimetres below the first with a large slab embedded in it.

where they were connected by a cross-wall running north and south. There thus revealed itself a narrow elongated chamber extending 7 metres from the line of the west wall of the "Stirrup-Vase" Room. The walls of this chamber were of small, rather roughly faced limestone blocks much resembling those of the foundations along the West and North Wall, but descending 7 metres—(24½ feet)—a far greater depth than any foundations here discovered. The virgin soil here at last reached consisted of the red potter's earth elsewhere found at about the same depth beneath the Neolithic clay deposit. Several pieces of Neolithic pottery were found in this deep chamber, but they must have reached their position through some later filling in. The walls themselves belong to the same Early Palace period as the foundations already referred to and at various levels in the pit, but especially at the bottom, were found fragments of fine stucco, its surface painted a warm terracotta colour and backed with a clayey straw-bound plaster.

Immediately east of the long pit on the further side of the Room of the Flower Gatherer was found another of similar depth and construction, but of much smaller dimensions, 4·25 metres in length by about 1·20 metres in breadth.

With what object were these walled pits constructed? Going down nearly twenty-five feet through the solid clay, they were not mere foundations; neither were they cisterns. As store places for corn they do not seem to be well adapted. In finding a motive for such structures we have in the first place to remember the character of the building in which they were contained. The rubble walls of the Palace made them bad for custody. Where precious objects would have been placed in the secure cells of later buildings, we find them, as is seen by the "Kaselles," deposited in receptacles stowed far away beneath the pavement of the Magazines. The walled pits, indeed, belong to a different category from these stone chests, but it seems conceivable that they were also destined for custody of another kind. In the royal residence some place was necessary for the safe-keeping of captives and hostages, and such by the conditions of the structure could not be found above ground. It does not seem unreasonable to recognise in these deep-sunk walled chambers the dungeons of the Palace—the longer chamber holding several prisoners, the smaller perhaps for solitary confinement. In these deep pits with their slippery cemented sides above, the captives would be as secure as those "beneath the leads" of Venice. The

groans of these Minoan dungeons may well have found an echo in the tale of Theseus.

### § 13.—CONTINUED EXPLORATION OF THE WEST MAGAZINES.

During the preceding season's work eight Magazines had been opened on the west side of the Long Gallery; the rest of this series, ten in number, making a total of eighteen, were excavated during the present campaign.

Already in last year's Report attention was called to the numerous traces of an upper storey visible above the top of the walls and door-jambs of these Magazines.<sup>1</sup> In this respect Nos. 9 and 10 are of special interest as exhibiting well-preserved remains of the actual flooring above the Magazines. A section near the mouth of the Ninth Magazine showed, about 30 centimetres from the surface of the ground, a burnt clay band with the core of a cylindrical crossbeam impressed in it. This former roof-line started at the sides from a height of about 1·90 metres, but sagged down slightly towards the centre. Above it was a brownish layer, and above that again traces of a white pavement of gypsum cement, which in its better preserved fragments showed small pebbles embedded into its fine upper surface. About 15 centimetres again above this was visible in places a red layer of clay plaster representing a second and later floor-level.

A section across the mouth of the Tenth Magazine showed—at the same height as that of No. 9—a clay layer burnt like the other to brick-like consistency from contact with the original roof-beams. Embedded in this burnt clay were visible, as in other similar positions, sherds of rough pottery. About 20 centimetres above the lower level of this burnt clay layer, and apparently forming one whole with it, was a pavement of clay cement with pebbles stuck in its upper surface. This part was carefully excavated from above, the result being to uncover patches of the same pavement *in situ* at a height of 2·5 metres from the floor-level of the Magazine below.

Above the stone jamb that separates the Eighth and Ninth Magazines, at a height of 1·40 metres from the floor-level, is the usual lacuna backed by gypsum cement and originally partly filled by the wooden

<sup>1</sup> *B. S. Annual*, 1900, p. 20.

beams which formed the lintels of the low doorways of the Magazines. This cement layer is 45 centimetres in thickness, and above it again as in other cases, is a large limestone block forming the base of the upper storey wall. This block has the eight-rayed star sign engraved upon it, which also regularly recurs on the lower jambs of the Magazines from the Sixth onwards.

We have here an important piece of evidence that the original structure of the upper storey in this part belongs to the same early date as the lower, though the existence of more than one pavement on the upper floor-level implies subsequent internal changes.

This structural stratification leads to another interesting conclusion. In these and the neighbouring Magazines, at various levels, were found fragments of Mycenaean painted vases, and similar fragments, many of them actually belonging to the same vessels as the others, were also found just outside the adjoining Western Wall of the building, above the level of the Court. It follows that all these remains of vases, whether found inside or outside the Western Wall, must have been derived from the upper chambers which we know to have here existed above the Magazines. The pieces found inside the Magazines, many of them far above the lower floor-level, had worked down to their present position owing to the breaking in of the upper floor.

To these remarkable ceramic relics there will be occasion to return.<sup>1</sup> They are typical examples of what I have elsewhere described as the "Palace Style" and belong to the most brilliant period of Mycenaean Art. They also show the style that was in vogue when this part of the Palace was destroyed.

These fragments may be safely regarded as having been derived from vases existing on the latest of the upper floor-levels, at the moment of the destruction. It follows that the earlier of the upper floor-levels, as seen in the Ninth Magazine, belongs to a period anterior to the great days of Mycenae. This conclusion altogether corresponds with the indication supplied by the limestone block exhibiting the stellar sign, which, as already pointed out, belongs to the earliest elements of the existing building as illustrated by the stone jambs of the Magazines below. It will be seen from the contents of some of the Kaselles and from other evidence that this early architectural element corresponded with a ceramic

<sup>1</sup> See below p. 47, and cf. *B. S. Annual*, 1900, p. 25.

style of a transitional character forming an off-shoot of the Kamáres class, and to which the name of "Mycenaean" is certainly not appropriate.

In order to preserve the valuable stratigraphical evidence supplied by the Ninth Magazine, a section of earth was left unexcavated near its entrance, forming a strip about 3 metres in extent. At the entrance itself in front of this section, six well-preserved *pithoi* were brought into view, one of them overturned. Behind the unexcavated block of earth, in the back part of the Magazine, stood fifteen more *pithoi*, twelve of them whole. This Magazine, like the Seventh, was divided into two parts by a projecting buttress 2·14 metres broad and 2 metres high. It consisted of well-squared gypsum blocks and stood out a metre from the south wall, leaving a gangway between the two halves of the Magazine of about 1·25 metres. A small deposit of clay tablets was found above the floor-level at the west end of this Magazine,<sup>1</sup> interesting as exhibiting a pictorial sign apparently representing a granary. A chalcedony lentoid gem was also found here, showing a man grappling with a bull, on the back of which springs a dog with bristling mane.

The Tenth Magazine was comparatively narrow. At the entrance it was 1·85 metres wide but, 2·30 metres in, the north wall thickened, reducing the width to 1·60 metres. The *pithoi* here had been a good deal broken and the "Kaselles" disturbed, probably by later treasure-seekers. Near the mouth of the Magazine, however, stood an exceptionally fine store-jar of somewhat elegant contour, with a slender base. In its system of decoration it somewhat recalled the large *pithos* from the room adjoining that of the Column Bases. At intervals between the base and summit it had three tiers of perforated handles, separated by triple horizontal bands.

The next three Magazines (Nos. 11, 12 and 13) are especially long—nearly 19 metres, or 5 metres more than the preceding series—the architect having availed himself of the additional space gained by the great angle of the Western Wall of the building. On the other hand they are narrow, their average width not exceeding about 1·60 metres.

The Eleventh Magazine<sup>2</sup> proved to be very rich in *pithoi* which, to the number of twenty-two—seventeen more or less perfectly preserved,—were arranged along its Northern Wall. The place of the "Kaselles" had

<sup>1</sup> One of them had fallen into the second *pithos* from that end.

<sup>2</sup> The south wall of this Magazine was badly preserved, the painted stucco being visible only at its east end. At 2 metres from the entrance the south wall thickens, and the Magazine narrows to a width of about 1·40 metres.

been modified in consequence of this and instead of being as before in the middle of the gallery they were here ranged nearer the south wall. Placed thus they were accessible without disturbing the store-jars. It will be seen that this is a very different arrangement from that of Magazine No. 8, where it was only after removing the huge store-jars that the chests below the pavement could be opened. At the west end of the Eleventh Magazine, owing to the falling away of the ground the tops of the pithoi were only a few centimetres beneath the surface of the earth, or actually showed above it, but they were nevertheless for the most part intact.

A small deposit of inscribed tablets, most of them in a somewhat fragmentary condition, was found in the Eleventh Magazine from about 80 centimetres to a metre from the surface of the ground near the sixth pithos from its entrance, into which some of the pieces had fallen. Near these were the charred remains of a wooden box and, in a vertical position near the south wall, a gypsum slab, perhaps belonging to a cist of that material, in which the box had been enclosed. Here were also found two seal impressions from large lentoid gems showing two variations of the type of a bull seized by lions, and a smaller sealing with a Cretan ibex in a contorted posture. From the height—about a metre—at which this deposit occurred above the floor-level and from the discovery in the adjoining Twelfth Magazine<sup>1</sup> of one or two isolated tablets which from their character seem to belong to the same series, it is probable that the chest containing the tablets had originally rested on the floor above. The half of an interesting seal impression exhibiting a facing head found over the wall of the Tenth Magazine had also probably helped to secure the same batch of clay documents.

The Twelfth Magazine contained twenty store-jars of which twelve were intact. They were ranged along the north wall, except one which blocked the gangway about the middle of the Magazine. The "Kaselles" were as in the last case set near the southern wall. They had been carefully lined with cement, perhaps to enable them to contain liquids.

The doorway of the Thirteenth Magazine had been narrowed by means of gypsum slabs set on end one over the other. The pithoi, of which thirteen were distinguishable along the North Wall, had with the exception of four been reduced to a very fragmentary condition. There

<sup>1</sup> The tablets, two perfect, one in two pieces, lay about 80 centimetres west of its entrance and 1·40 to 1·70 metres below the surface of the ground.

was here a long row of nine Kaselles—two at the west end out of line with the others and nearer the south wall. In this Magazine was found a glazed terracotta roundel with volute quatrefoil. About 5 metres from the entrance and a metre below the surface there also came to light a few pictographic seals—apparently forming part of a small deposit independent of those found at the back of the staircase of the Long Gallery.

The succeeding Magazines, from the Fourteenth to the Seventeenth inclusive, form a group by themselves distinguished from the others by the fact that they communicate with the Long Gallery by a single entrance. This single entrance, which leads first to the Seventeenth Magazine, abuts on the narrow passage which forms the continuation of the Long Gallery beyond the point where it is partly blocked by the stone staircase. This comparative isolation, moreover, was in the latest days of the Palace made complete by a small cross-wall of rubble masonry which blocked the narrower continuation of the Long Gallery just before the entrance to the Seventeenth Magazine. That this cross-wall was a later construction is shown by the uninterrupted continuance of the pavement slabs beneath it which mark the prolonged course of the Long Gallery.

The existence of a reveal on the further side of the north entrance pillar of the Thirteenth Magazine makes it probable that the Fourteenth was also originally planned to have a direct entrance from the Long Gallery. According to the existing arrangement, however, it was necessary to enter by the Seventeenth Magazine, to pass thence by a door opening to the left into the Sixteenth, to skirt round the Fifteenth Magazine and thus eventually to reach the Thirteenth Magazine by a door at its back.

The floor of the Fourteenth Magazine was of rough paving, perhaps originally covered with cement. No pithoi seem to have been stored here, and the objects that came to light in this chamber were doubtless derived from an important structure of the upper storey. Chief among these were several fragments of a fine limestone frieze with reliefs and other architectural fragments to be described below. There were also found considerable remains of burnt wooden beams<sup>1</sup> which probably belonged to the same superstructure. Some fragmentary tablets found here were merely stray pieces from an important deposit found in Magazine No. 15.

The Fifteenth Magazine, shorter than the last, was also entered from

<sup>1</sup> These charred remains lay at depths varying from 1·20 metres below the surface at the east end of the Magazine to 1 metre at the west.

the Sixteenth by a door near its west end, the carbonised remains of its wooden door-posts being well preserved. The floor here consisted of isolated and irregular paving stones which had acted as a support for a cement pavement. Like the other Magazines of this group it was devoid of store-jars.

Near the west end of this chamber was found a remarkable relic cut out of the porphyry-like limestone much used here for sculptured objects



FIG. 12.—STONE WEIGHT : Height 42 cm. (17 in.).

(Fig. 12). It was evidently a large weight and had a boring near its apex for suspension. Upon both its sub-triangular faces it showed an octopus in relief, and their tentacles were also coiled over its square-cut sides. A smaller perforated object of gypsum, presenting the same general outline but without any ornament, was found in Magazine 13,<sup>1</sup> but from the carelessness of its fabric this may have simply belonged to the class of loom-weights.

<sup>1</sup> In too decayed a condition to afford a sufficient index of its original weight.

The present carefully finished and elaborately decorated example, which is 42 centimetres in height<sup>1</sup> and weighs 29 kilograms<sup>2</sup> has every appearance of having been a standard weight. The device of the octopus for the ornamental reliefs may well have been dictated by the desire to secure a design which would cover the whole surface and thus protect the weight from fraudulent chipping or grinding away. In this way it would have answered the same purpose as the official stamp of a coin or the milling of its edges. It is to be observed that the weight shows a close approximation to the Babylonian mina system. Weights of 30 light minas or half talents are known, scaling approximately 15,000 grammes.<sup>3</sup> The corresponding heavy 30 mina weight would be 30,000 grammes—a talent according to the alternative calculation. It will be seen that the Knossian weight of 29,000 grammes represents a very slight reduction on this Babylonian standard. The influence of foreign weights—so far at least as form is concerned—has been already illustrated among the Palace finds by the small haematite weight of a type common to Palestine and Egypt.<sup>4</sup> In the present case, indeed, the form has nothing in common with the duck or lion weights of Babylonia, though the standard seems to correspond with the light talent or with half the heavy talent.

The Fifteenth Magazine was also noteworthy for a very important deposit of inscribed clay tablets of the linear class. These were found from about 50 centimetres beneath the surface a little to the left of the entrance. Parts of many were wanting owing to the mass of the deposit lying too near the surface earth, but it nevertheless contained some of the longest inscriptions yet discovered. Among these is one of fourteen lines in which the woman-sign is constantly repeated. Like others of this series on which this sign occurs it possibly refers to female slaves. With this hoard of tablets was found a seal impression showing a bull attacked by two dogs countermarked and countersigned in the linear script, another exceptionally large impression with two bulls and another with part of the "Lions' Gate" scheme. It is possible that this deposit had been originally placed in a room of the upper storey and had fallen through into the Magazine.

In this Magazine and the adjoining space at its back between its end

<sup>1</sup> It is 27 centimetres wide and 13 thick at bottom and 8 centimetres wide at top. The boring is 5-6 centimetres in diameter.

<sup>2</sup> As nearly as could be determined by local weights and measures.

<sup>3</sup> Brandis, *Münz. Mass. u. Gewichtswesen, etc.* : Head, *Historia Numorum*, pp. xxx. xxxi.

<sup>4</sup> See above.

wall and the West Wall of the building were found further parts of the stone frieze and other architectural fragments. This back space, which affords passage to the entrance of the Fourteenth Magazine, is itself a continuation of the Sixteenth. Except for a stone cist against the South Wall the Sixteenth Magazine offered little of interest, and the Seventeenth was only remarkable from the fact that a line of "Kaselles" that had formerly extended along its floor had been entirely dug up at some time by treasure-hunters leaving a long square trough.

The relation of the Eighteenth Magazine to the adjoining group is not clear, as there is no visible entrance to it. In this Magazine was found a three-sided clay seal with linear inscriptions and an obsidian arrow-head of a type resembling those from the Shaft Graves at Mycenae. In this

connexion may be mentioned the discovery, by a large rubbish heap on the north-east corner of the site, of a small steatite relief of an archer against a background of conventional rocks (Fig. 13). He is bearded, unlike the other male figures found here, and wears a kind of bathing drawers somewhat different from the typical Mycenaean costume as seen at Knossos but identical with that of the lion-hunters on the dagger-blade from the Fourth Akropolis tomb. His attitude greatly resembles that of the naked bowmen on the silver vase fragment



FIG. 13.—STEATITE RELIEF OF ARCHER.

from the same grave, and his bow, like theirs, is of the European and African type. It is probable that this was part of a battle scene.

The ground here sinks so that the walls are greatly denuded towards the extreme north-west angle of the Palace, which makes it difficult to ascertain the exact interior arrangement at this point. It is certain, however, that the chambers here do not form part of the regular system of the western Magazines.

#### § 14.—FURTHER EXPLORATION OF THE "KASELLES" BENEATH THE FLOORS OF THE MAGAZINES.

One of the most interesting problems left by the first year's excavation was the purpose of the stone cists beneath the floors of the Magazines to

which the native name of "Kaselles" (*Κασέλλαις*) has been here applied. It has been already noted that in the Magazines 9-14, opened during the present season, fresh lines of these were exposed. In some cases the upper slabs had been already taken away, and in no instance were they so completely masked by the pavement as in the Eighth Magazine, it being possible to raise the top slab without first removing, as was there necessary,<sup>1</sup> the whole breadth of the pavement. In Magazines 11, 12 and 13, indeed, the Kaselles had been purposely placed in such a position that they could be opened or made use of without displacing the pithoi. From the entire absence of any sign of grain or other solid stores in the store-jars, the contents of which were all carefully examined, it is almost certain that they contained liquid stores. It is possible therefore that the upper receptacles of the cists in front of them were used as small vats into which oil or wine may have been poured from these clay butts. The liquid thus disposed of would then have been much more accessible for transference into smaller vessels, than when it lay within the high walls of the pithoi.

The entire absence of the upper lids of the Kaselles may in some cases be explained by the presumption that they had been always left open for this purpose or provided only with movable wooden lids.

Even in those cases, however, where the upper receptacle was found uncovered, the removal of its bottom slab, which formed at the same time the lid of the lower cist, was a work of great difficulty. Indeed the continued exploration of the "Kaselles" involved so much careful mason's work and so much necessary removal of the structure around and above that it was not found possible during the last season to open more than a few typical examples.

Fresh Kaselles were opened in Magazines 4, 5 and 6. In the Fifth Magazine the Kasella No. 5 from the west end of the chamber, the upper receptacle of which was found open, was further investigated. The floor of this upper receptacle was formed by a closely compacted and cemented slab which could only be lifted after its side walls had been partially removed. The lower cist was then found to be filled with earth and rubble of the character of builders' sweepings, amongst which, however, was found a largish piece of crumpled gold foil.

In Magazine 6, another cist, the fifth from the west end, and, like the former, open above, was also further explored. It was of the same con-

<sup>1</sup> *B. S. Annual*, 1900, p. 24.

struction as the other, the floor of the upper receptacle being solidly fixed and cemented into the surrounding masonry. On its removal the lower cist was found full of earth and fragments of a pithos, but here too a piece of gold foil came to light. In the lower cist of the first Kasella of the Seventh Magazine a piece of gold foil was also found amidst the earth and rubble.

These repeated discoveries of gold foil in the carefully closed lower cists, is a phenomenon of great significance. The gold foil would hardly have been found in such a position unless it had been the leavings of much more important treasure in precious metals. In other words we have here direct corroboration of the view already expressed in my last year's Report that these almost inaccessible lower repositories, the concealment of which must have been absolute when the upper cist was filled with oil or other liquid stores, were devised for the reception of treasure. These in fact are the safes of the Minoan Palace. But the bullion had been withdrawn—perhaps in all cases the framework of the Kaselles re-cemented—at a date anterior to the destruction of the building.

Of the considerable treasures in precious metals that originally existed here we have, indeed, other direct evidence. On a series of frescoes—some to be described below—tributaries or attendants are seen carrying vases, the yellow and blue colouring of which is significant of gold and silver. Not to speak of those enumerating ingots, many of the clay documents—for the most part inventories and accounts—relate to vessels the forms of which clearly indicate that they were made of precious metals. In addition to examples found last year a small deposit of tablets referring to metal vases was found during this season's work in a Magazine opening on the east side of the Long Gallery.

The second Kasella from the west end of Magazine 4 afforded some additional evidence of special interest in its chronological bearing. The lower of the two cists, which were of the same construction as those already described,<sup>1</sup> was found to be filled with rubble masonry and plaster probably, like that found in a lesser abundance in the preceding cists, the result of the destructive work due to the former opening of the cist at the time when what treasure it may have contained was for some reason withdrawn.

<sup>1</sup> The slab forming the bottom of the upper receptacle and the lid of the lower was placed at a depth of 40 centimetres below the original upper lid. The narrow bases of the upright side slabs of the upper cist overlapped the edge of the bottom slab which could not, therefore, be removed till they had been taken out. This is the regular arrangement.

Among these débris was a fragment of a block with the double-axe sign cut on it, and the remains of three clay vessels of a late Kamáres type (Fig. 14). Two of these were plain pyriform vessels with oval mouth and two handles, one of which, tinted of a purplish brown colour with faint traces of white horizontal bands, it was possible to put together. Two other fragments belonged to another round-necked jar with spirals and flourishes in white on the same ground colour. These ceramic remains



FIG. 14.—PAINTED POTTERY OF LATE KAMÁRES CLASS FROM “KASELLA.”

conclusively show that at the time when this lower receptacle was finally closed, the old Cretan type of painted pottery known from the cave where it was first discovered on the southern steep of Mount Ida, as the Kamáres style—was still in vogue. The discovery of the fragmentary block with the double-axe mark further shows what was already becoming evident from a variety of indications—that the fine gypsum masonry with this and other kindred signs which mark the earliest Palace structure belong at least to the close of this Pre-Mycenaean Period.

The vases in this Kasella correspond in style with the painted jar con-

taining smaller vessels, found beneath the later floor level of the Third Magazine, a fact which confirms the view already expressed in my first Report,<sup>1</sup> that the jar in question was placed there after the construction of the Magazine and upon its original floor-level. A similar find was made during the present season, under the later floor-level of the First Magazine,<sup>2</sup> of a wide-mouthed Kamáres jar, broken at the rim, containing smaller vessels, among them some cups of exquisitely thin fabric.

An interesting feature of the upper receptacles of the Kaselles of the Fourth Magazine, is that their inner walls, together with the bordering slabs of the pavement and parts of the adjoining walls of the Magazine, are much blackened, evidently from the burning of some specially inflammable substance that had been contained in these receptacles. It is reasonable to suppose that this was oil.

#### § 15.—THE LONG GALLERY AND THE MAGAZINES ON ITS EASTERN SIDE.

Further investigations in the Long Gallery and the adjoining area brought out several new data. Its tortuous Southern Entrance seems to have been guarded by a triple group of massive structures in a line with the western doors of the building. The access to its entrance passage is through a double gangway separated by a solid block of masonry forming an elongated oblong, and flanked by two other rectangular blocks which seem to form the bases of lateral towers. The whole must originally have formed an imposing Pylon.

The total length of the Long Gallery is about 60 metres or 200 feet. In its later as its earlier course it narrows to about half its diameter. The question arose whether the staircase at its north end and the elongated chamber behind it, where the hoard of Pictographic tablets was discovered, represented parts of the original scheme, or whether possibly the pavement of the Gallery was continued under these, in which case they would evidently be later constructions. A careful examination, however, proved that the original pavement narrowed at this point, and that the edges of the slabs corresponded to the outer boundaries of this structure. There is no reason therefore to suppose that the chamber containing this exceptional deposit of tablets and sealings was a later addition.

<sup>1</sup> *B. S. Annual*, 1900, p. 21.

<sup>2</sup> 1·65 metres from its west end.

An interesting indication that this Long Gallery was in the main at least lit by artificial light, was supplied by some limestone objects of which two examples were here found. These are in the form of stepped pyramids with a socket bored in their summit, and the Cretan workmen at once recognised in them "torch-holders." It appears that a similar method of fixing torches is still known in the island, and the explanation seems to be quite satisfactory.

The more recent investigations have done much to illustrate the eastern connexions of the Long Gallery. At the south-east it gave access through a low doorway, of which the carbonized posts and wooden lintel were found almost perfectly preserved, to what must be regarded as a group of slightly recessed store-rooms, consisting of bays divided by piers engraved with a cruciform sign—answering to the cross patée of heraldry.

It has been already noted that the passage to which, from the pictorial designs exhibited by them, the name of the "Gallery of the House-tablets" was provisionally given<sup>1</sup> affords direct access, by means of another passage that opens on to it, to the Room of the Column Bases and through it to the Central Court. The supposed isolation on this side does not exist.

At intervals along the Eastern Wall of the Long Gallery, beyond the point where this passage debouches on it, were visible several stone jambs or the remains of such, answering to those at the entrances of the Magazines on the western side, and with similar signs cut on them. It was clear that these had originally given access to rooms or Magazines on the eastern side of the Gallery. It thus appeared that a doorway led directly from the Long Gallery to a somewhat complicated group of small chambers north of the Pillar Rooms. The access to these from the east Pillar Room is indeed of a very narrow and doubtful kind. Immediately beyond this to the north were the well preserved jambs of another doorway in the East Wall of the Long Gallery leading to a chamber left unexcavated in 1900, but which proved, in fact, to be a long Magazine, like those opposite, divided into two compartments by a short projecting cross-wall or buttress towards its eastern end.

This Magazine has already been referred to as having contained fresco fragments fallen from the long Upper Hall above, including the painted stucco relief of the man's fingers holding the gold jewel. It also contained

<sup>1</sup> From the occurrence in the Ninth Magazine of tablets with pictorial representations of similar structures surmounted by ears of corn, it seems certain that they represent granaries.

a small but interesting hoard of inscribed tablets. This deposit, though somewhat scattered, centred round a small niche or "loculus" about half a metre below the surface near the east end of the chamber. From the abundance of decayed gypsum associated with the tablets in this loculus there seems to have been originally a kind of cist in the wall here. From its comparatively high position the contents of this deposit had shown a tendency to drift, and one or two pieces of tablets unquestionably belonging to the same hoard had made their way over the wall or through the entrance into the Long Gallery and even to the mouth of the Eighth Magazine opposite. Several tablets of this deposit exhibited pictorial representations of two-handled vases of forms characteristic of metal technique—one of them with an elaborate curved handle. It has hence been convenient to call this the "Magazine of the Vase Tablets."

With the deposit of inscriptions were also, as usual, found several clay seal impressions. Three of these, evidently taken from a gold signet ring, exhibited a female figure, presumably a Goddess, addressing a male votary. There were also the whole or part of three seals which had been impressed by a very fine lentoid intaglio of a dog with a collar round his neck,<sup>1</sup> looking back and upwards. Another, somewhat fragmentary, showing a lion springing at the neck of a lioness, is of noble naturalistic work and very finely engraved.

In this chamber was also found part of a bronze knife of a typical Mycenaean form and another curious implement of bronze the outline of which forms a *vesica piscis*. Beneath the later floor level which is here 2·50 metres below the surface were remains of a clay lamp, with a shallow recipient made for two wicks, of the same pedestalled class as the stone lamps found on this site. It belonged to the Kamáres class of pottery with red and white decoration on a dark ground. It appears, therefore, that this type of lamp goes back at Knossos to the pre-Mycenaean period.

A little east of the north end of the Long Gallery, near the staircase, was found a minute but very beautiful gold lion. It was formed of two embossed gold plates, the mane being indicated with filigree work of microscopic fineness. The limbs and body of the lion were modelled in the best Mycenaean style, and the whole is a little masterpiece of the goldsmiths' craft. It supplies an anticipation, in the same line and of unsurpassed delicacy, of the finest Etruscan jewellery.

<sup>1</sup> Other examples of this seal impression were found elsewhere on the site.

## § 16.—MYCENAEAN PAINTED POTTERY OF THE “PALACE STYLE.”

It has been already noted that at various levels in the Eighth, Ninth, and Tenth Magazines, as well as in the neighbouring deposit along the outer edge of the West Wall of the building, were found numerous fragments of Mycenaean vases in a peculiarly fine “Palace Style,” which had been derived from rooms formerly existing above these Magazines. It was possible to put together a sufficient part of some of these vases to complete the designs in several cases, and thus for the first time to obtain an idea of the magnificent style of vase-painting prevalent at Knossos in the great days of the Palace. Nothing among the hitherto published Mycenaean ceramic types exactly corresponds with these, but Mr. J. H. Marshall, who kindly undertook the reconstruction of the Knossian fragments, has been able to identify a large vase from a recently discovered tomb of Mycenae, and fragments of another from the Vaphio tomb (left undescribed by its discoverer) as belonging to the same fabric, and with good reason regards these and some other isolated specimens found on the mainland of Greece as of Knossian importation.

The view that this in fact represents the indigenous “Palace Style” of Knossos in its highest development is confirmed by the evident parallelism which its motives present to the decorative wall paintings of the building. The rosettes—sometimes combined with spirals—so characteristic of these designs, and certain foliated bands, are in fact taken over from the architectural frescoes and reliefs of the Palace. On the vases as in the wall-paintings occur, moreover, conventional flowers betraying reminiscences of the Egyptian papyrus.

Besides these quasi-architectonic types, characteristic of the most stately jars of the Palace chambers, there were found both here and elsewhere on the site, notably in the Room of the Bull-Hunting Fresco on the east slope, to be described below, numerous specimens of another more purely naturalistic class of vase-painting which has also a strong claim to be regarded as distinctively Cretan. Good specimens of this style were also found by Mr. Hogarth in the neighbouring houses, but the result of the present season’s excavations in the Palace has been greatly to add to the material. Here again an indication of local production is afforded by the interesting parallelism exhibited between many of these designs and

the flowers and foliage seen on some of the wall-paintings. The reeds and grasses, almost Japanese in their naturalistic fidelity, the crocuses and iris-like flowers, the sprays of olive and myrtle, that decorate the vases, reappear upon the Palace walls.

Some of these fragments show marine subjects, sea-weeds, rocks of grotesque outline or Triton shells, in this case again presenting analogies with other branches of Palace decoration. The Triton shells find their reproduction in the round in the shape of an alabaster vase and in a glyptic form on seal impressions. The rocks are seen as reliefs on steatite vases and gave the suggestion for the fantastic border of a curious red limestone slab found in a chamber adjoining the Hall of the Colonnades on the eastern slope.

#### § 17.—THE DOUBLE-AXE ON THE PALACE POTTERY.

Another design that appears upon a piece of one of the larger jars suggests a dedicatory intention. It is a decorative rendering of a double-axe, with a diagonal transverse band on each of its wings (Fig. 15, *a*). This transverse band and the border with which it is accompanied is not seen on the double-axes actually in use in Mycenaean times, of which so many examples have been found both in Crete and on the mainland of Greece. On the other hand it is a characteristic of some of the small votive double-axes found in the Dictaeon Cave,<sup>1</sup> and of certain Cretan gems presenting the “*labrys*” type of which an example was also found in the votive deposit of the same cave sanctuary. There is therefore reason to believe that the diagonal and other markings reproduced in a decorative form on the double-axe of the vase had a special religious association.

The appearance of the double-axe of the Cretan and Carian God on painted vases of the earlier Kamáres class from this site has already been noted. In my recently published monograph on “Mycenaean Tree and Pillar Cult” I had adduced evidence in support of the view that the double-axe can itself be regarded “as the visible impersonation of the divinity,”

<sup>1</sup> In 1895 I obtained here a part of a votive axe of this type (restored in Fig. 15, *c* above), and others were subsequently found by Mr. Hogarth (Fig. 15, *b*). In 1896 I found a somewhat rude steatite gem in the Dictaeon Cave showing an axe with the same characteristic markings. I have also come across two other examples of the same type, one, a cornelian from Kavusi (Fig. 15, *d*), the other of the same material from Girapetra. In other cases the “*labrys*” without the diagonal bands appears as the principal type on Cretan gems.

and that apart from, and in addition to, this pillar form, the God may also have been worshipped in the actual form of the "labrys."<sup>1</sup> I ventured

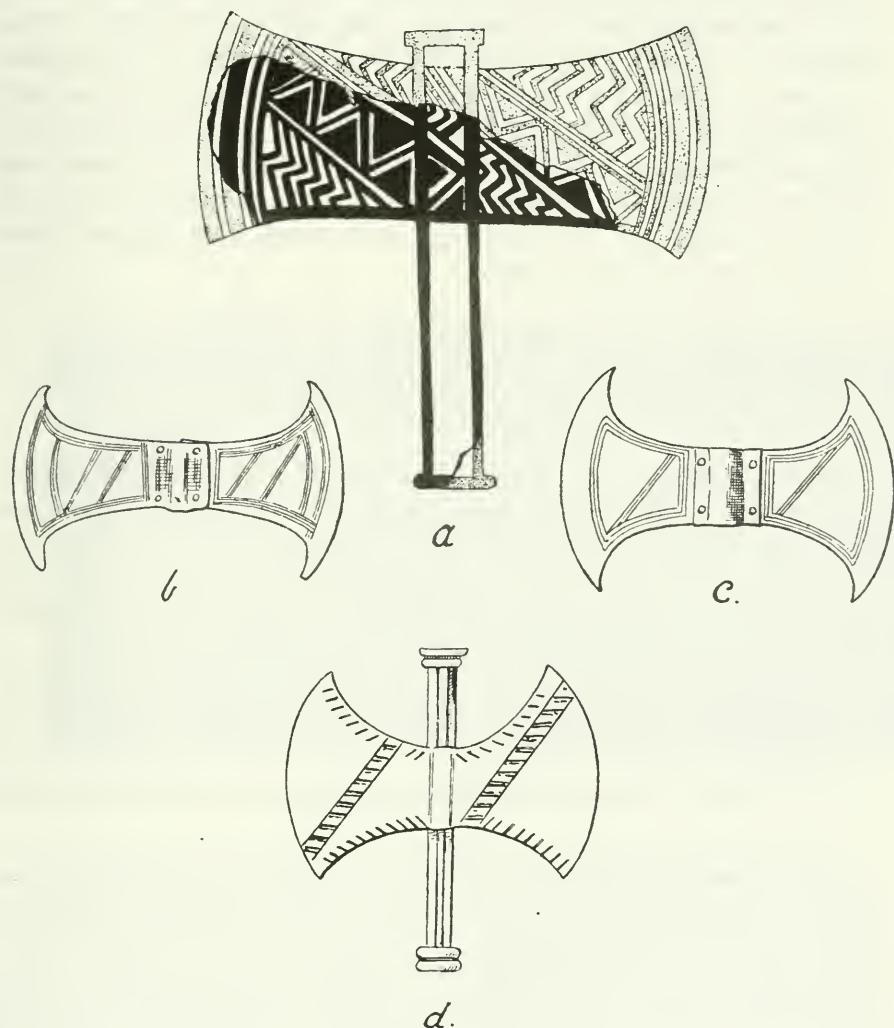


FIG. 15.

a. Double-Axe on Vase Fragment; b. Bronze Votive Axe from Dictaean Cave; c. do. (Right Wing restored); d. Double-Axe on Gem (enlarged).

therefore to suggest that the derivation of Labranda and of Labyrinthos

<sup>1</sup> *J.H.S.* 1900, pp. 106-109. In the separate publication (Macmillan and Co. 1901), pp. 8-10.

as proposed by Max Mayer and Kretschmer<sup>1</sup> might be taken in its most literal sense as "the place of the *labrys*." Two discoveries made this season in Eastern Crete have gone far to confirm the view that the double-axe as well as the column could be directly worshipped as a "baetylic" impersonation of the God. One is a gem impression discovered by Mr. Hogarth at Zakro, in which a female figure is seen in the act of adoration before a double-axe in an elevated position.<sup>2</sup> The other is the painted side of a Mycenaean sarcophagus discovered in Eastern Crete, in which a pillar with a slab at top forms the support of a double-axe with the "horns of consecration" before it. An adjoining panel shows a griffin and further examples of the horned cult object.<sup>3</sup>

#### § 18.—FRIEZE AND FRESCO FRAGMENTS FROM STRUCTURE ABOVE FIRST NORTH-WEST ANGLE OF THE WEST WALL.

In several of the basement spaces enclosed by what may be described as the first north-western angle of the West Wall of the building were found considerable remains of a kind of frieze or band of reliefs, of a porphyry-like limestone, together with other architectural fragments of the same material. A portion of the relief band, of which the pieces fitted together, is given in Fig. 16.

It will be seen that it belongs to the same class as the inlaid alabaster band from the vestibule of the Palace at Tiryns, and the friezes found at Mycenae, as well as that depicted on the small Temple Fresco of Knossos itself.<sup>4</sup> The present arrangement, however, in which the central

<sup>1</sup> In the article already referred to (p. 22 note) on the "Double-Axe and the Labyrinth" (*J.H.S.* xxi. Pt. ii. p. 268, seqq.), Mr. W. H. D. Rouse betrays an obvious want of familiarity with some of the most elementary features of primitive religion, and seems incapable of imagining that Greece like other countries passed through the aniconic stage of worship. The worship of the double-axe altogether shocks his propriety. "The Greeks," he writes, "would be as likely to worship a pair of top boots.... Such exaggerated superstition was foreign to the Greek intellect"—as if the Hellenic sources of the fifth century B.C. could afford an index to the Mycenaean and still earlier Eteocretan worship of the fifteenth or the twentieth! The conclusion of the eminent philologists above cited that *Labyrinthus* is connected with *Labrys* and *Labranda*, now widely accepted among scholars, is to Mr. Rouse a mere source of merriment. "On the same principle," he writes, "Fluellen undertook to prove that Alexander was a Welshman; there is a river in Monmouth and there is a river, look you, in Macedon also."

<sup>2</sup> See below.

<sup>3</sup> See below.

<sup>4</sup> *J.H.S.* 1900, p. 192 and Plate.

band of the "triglyph" between the elongated half rosettes, is formed of a succession of spirals, finds its nearest parallel in the small glass paste relief, from the beehive tomb at Menidi. In the Temple Fresco we see a relief of this kind placed below the opening of a pillared chamber. A more detailed study of the architectural fragments found with the stone frieze may eventually throw some light on its position here.

Amongst other fragments in the same material found in this angle of the Palace Wall were parts of a huge bowl-shaped vase and the volute shaft of a small column with a spiral band running up it, the centre of which is formed by a chain of spirals like those of the "triglyphs" of the frieze.

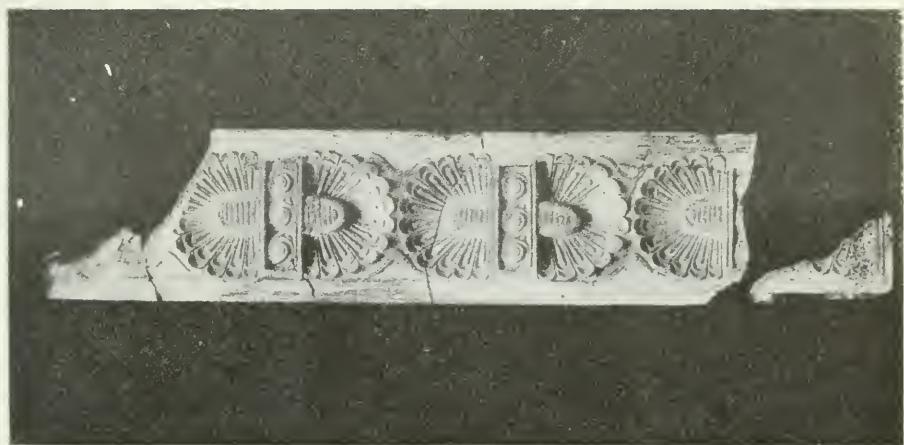


FIG. 16.—PARTS OF A FRIEZE OF PORPHYRY-LIKE STONE WITH RELIEFS.

There can be no doubt that these varied architectural and sculptural remains indicate the existence of an important structure at this angle of the Western Wall, and it is possible that it was owing to the necessity of giving additional support to this that the platform of large blocks, apparently serving the purpose of a buttress, was here set against the corner of the wall-foundations.

There is every reason for supposing that a series of painted stucco fragments found on or near the edge of the Western Wall at this point belonged to the same structure as the stone frieze and other architectural remains. The principal subject of these wall paintings were zones of

human figures which when perfect must have been about a fifth the natural height. The figures, for the most part in a very fragmentary state, were more carelessly executed than the Cup-bearer or those of the miniature frescoes. The zones in which they were arranged were bordered above by triple bands of black, red and white, and the figures themselves were set on blue and yellow fields.

Incomplete as is the information to be derived from these fragments it is interesting as supplying some quite new aspects of the costumes as worn in Mycenaean Knossos. The bust of a girl (Fig. 17) characterised by a very large eye and brilliant vermeil lips as well as by the usual curling black hair displays a high-bodied dress of quite a novel character. It is looped up at the shoulder into a bunch—blue with red and black stripes—from which the fringed ends hang down behind, while a border of the same robe adorned with what are apparently three smaller loops is carried across the bosom. Within this border the white flesh colour is shown between narrow blue and red bands, indicating that this part of the dress was diaphanous. The men, distinguished by their conventional red tint, seem to have been clad in short-sleeved tunics, blue and yellow with black stripes, which descend to their ankles. A part of a seated figure preserved has two wing-like ends of the same material falling down behind the shoulders.

Two of the fragments show goblets held in men's hands. Both of these are of the high-stemmed type presenting in outline some resemblance to a champagne glass, but with a handle on either side of the rim. The colouring of these, blue and orange respectively, implies, according to the usual convention of the Knossian artists, that the materials of which they were composed were gold and silver. Another fragmentary painting represents the lower part of what seems to be a much larger vessel in which these two precious metals are combined.

#### § 19.—THE NORTH-WEST ANGLES OF THE WALL AND THE NORTHERN PALACE QUARTER.

Beyond the first north-west angle of the building, marked by the buttress platform of large blocks, its outer wall takes a turn of a little over 6 metres to the east, and then north again for 13·40 metres to a second north-west angle. From this corner<sup>1</sup> again it runs east for 15·20 metres

<sup>1</sup> Just east of this corner the foundations had been a good deal injured. They have been since repaired.



FIG. 17.—FRESCO PAINTING OF GIRL (3).

to a point in a line with the West Wall of the Long Gallery. Owing to the comparative denudation of the surface on this side the limestone plinth and large gypsum blocks that formed the base of the wall overlooking the West Court are here wanting, and all that is preserved are the smaller faced stones that characterise the foundation structure. This foundation wall went down 1·30 metres along this section.<sup>1</sup> A good idea of this part of the North Wall is given by the general view on Plate II.

Beyond this there is a break in the regular line of masonry, and there are clear indications that the outer wall here originally took another turn to the north, forming a prolongation of the line of the West Wall of the Long Gallery. Owing to the slope of the original surface this northern turn of the wall probably took a step down, but its course can at present only be traced by remains of later wall. These later remains (see Pl. II.) indicate that, after running north about 10·50 metres from this angle, it again turned east towards the lower part of the Northern Entrance passage.

At the same time an interior wall of different construction, but forming a continuation of the line taken by the first section of the outer North Wall, runs parallel to this second section towards the centre of the northern passage way, the doorways opening on the Northern Portico being on this line. The first part of this cross wall, which starts from opposite the north end of the Long Gallery, has for a length of 24·15 metres fine limestone blocks superposed on two somewhat irregular courses of gypsum blocks (see Pl. II.). The wall is 2·20 metres in height and seems to have formed the support of an upper terrace.

It will be seen that this Terrace Wall together with its continuation along the Northern Portico forms the southern boundary of what must have been a very distinct quarter of the building. This Northern Quarter formed a rectangular area bounded to the west and north by the original course of the outer wall and to the east by the walls and bastion that guard the Northern Entrance way on this side.

The eastern part of this area is largely occupied by the Northern Portico already partly explored last year and by the small paved piazza on which it opens. This North Piazza was found to abut on its western side on what seems to have been a large bath with accessory chambers.

<sup>1</sup> A puzzling circumstance was the discovery at the base of this wall of a tough flooring of clay and red potter's earth. It perhaps belonged to some outside cellar of later construction.

On the borders of the Portico, in the corner near the bath-chamber and the "Threshing-floor Area" to the south of it, were found further remains of the tumultuary heap of deposit partly excavated last year containing fragments of painted stucco. Among the more interesting pieces discovered is part of the head of a cat-like animal with a yellow ground and white brown-bordered spots. Lying near it was another fragment exhibiting the body and the underside of the wing of a gaily plumaged bird in the act of flying. It is probable that both cat and bird formed part of the same fresco design based, like the well-known representation of the dagger blade from Mycenae, on an Egyptian Nile piece showing cats hunting water-fowls. The influence of this Nilotic cycle on the engraved gems of Mycenaean Crete is also very noticeable. We not only find water-fowl amidst papyrus clumps but in one case a cat pursuing them.

Among the naturalistic subjects of these fresco fragments were grasses of red, blue and grey on a white ground and parts of olive leaf borders. Spirals, rosettes, the wave and wavelet, and quatrefoil combinations, like that of the Cupbearer's robe on a larger scale, were among the decorative designs. One fragment seemed to represent double pipes and another a part of a sphinx or griffin. Some of the pieces were in relief, including a part of a man's leg near the thigh, life-size and showing the loin cloth. But of all the moulded fragments the most beautiful were rounded bands with a polished turquoise surface broken by fine white chevrons alternating with dotted returning spirals.

Outside the north-west angle of the Palace and the western part of this Northern Quarter are remains of a paved court with good rough limestone flags. This is separated from the second section of the North Wall by an interval of about 8 metres and itself forms a strip some 6 metres broad. As the remains of later structures were cleared away between it and the Northern Wall it is possible, however, that the pavement may originally have come up to it like that of the Western Court. This northern paved area is bounded on the west by the long outside building already described as containing fine pieces of early Kamáres pottery. At a little distance from this structure came to light a very large limestone block which had evidently formed half the arch of a "Cyclopean" gateway. The extremely massive character of this block points to a very primitive construction. It is possible that it may have originally formed part of the northern gateway of the Palace. Remains of a causeway

similar to those of the Western Court were traceable running from west to east along this northern paved area. It is probable that a continuation of this formerly led down to the Northern Entrance.

#### § 20.—THE NORTHERN AND SOUTH-EASTERN BATHS.

On the western side of the Piazza outside the Northern Portico, partly obscured by later walls, were the gypsum jambs of a fine double entrance leading to what must certainly be regarded as a large bath and its accessory chambers. All this bath system belongs to the original structure of the building, but this and, as we shall see, the adjoining chambers had been destroyed by some catastrophe that took place at an early period in the history of the Palace. The basin of the bath itself had been filled up and was crossed by two later walls running from north to south, and two others from east to west. The foundations of these partly rested on the upper surface of the tank-walls. On the south side of the tank, however, where its wall follows that of the Upper Terrace Wall, described in the preceding section, there was distinct evidence that the later structure had only followed at a considerable interval after the destruction of the bath. For here, a metre from the top of the Terrace Wall, were still adhering parts of the painted wall stucco and cement pavement of a later chamber separated from the top of the tank by a metre of deposit which must have accumulated after its destruction and complete filling up. Yet this later construction is itself of very early date. The wall-stucco, in fact, shows remains of fine spiral decoration belonging to the good Mycenaean period.

The later walls above the top of the tank having been removed, it was possible to recover almost the whole original construction. The gallery or chamber to which the right-hand doorway, entering from the Piazza, had once led, had completely disappeared. The other doorway on the other hand opened directly on a passage which, passing by the door jambs of a small room on the left, led down by a double flight of steps to the square basin of the bath. A parapet descending step-wise, cased by gypsum slabs,<sup>1</sup> followed the inner side of the stair-way and terminated below in a gypsum pillar supporting a column-base. This gypsum pillar was 72 centimetres

<sup>1</sup> Several of the upper slabs of these were found in a disintegrated condition, and have been replaced in order to preserve the rest of the parapet. The walling of the parapet within the slabs was of clay and rubble.

high and 57 square, and showed on its upper surface dowel holes corresponding with others in the lower surface of the column bases. The column base itself was formed of a cylindrical drum 37 centimetres in diameter on a square block rising in a double step, and it had probably supported a wooden column. The steps, only a few of which were preserved, were 90 centimetres broad, and were separated from the inner slabs of the parapet by a low plinth, 34 centimetres in width.

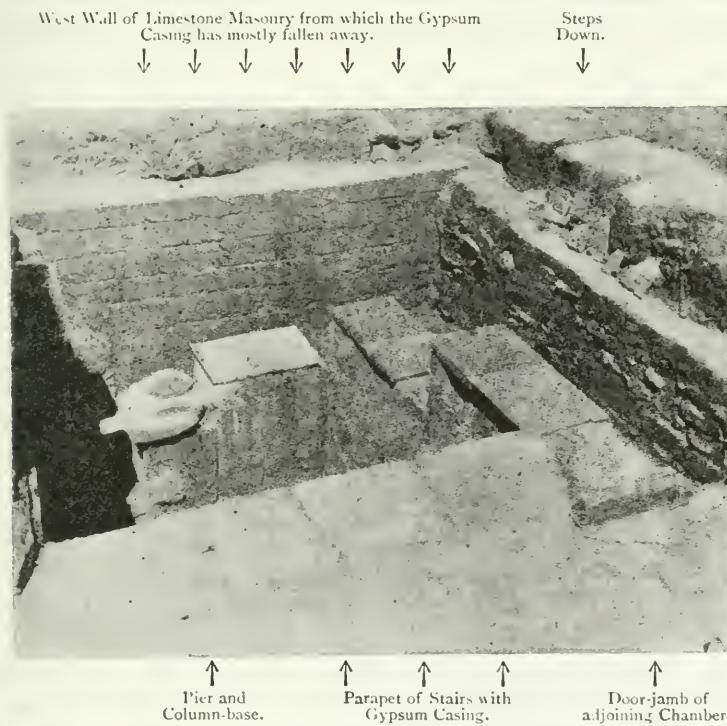


FIG. 18.—NORTHERN BATH LOOKING NORTH-WEST.

The inner basin of the bath was nearly square ( $2\cdot56 \times 2\cdot45$  metres) and 2 metres deep. The walls were composed of closely fitting rectangular limestone blocks faced with large gypsum slabs 2 metres high, and from 1 to 1.30 metres broad. On the west wall the gypsum facing had become disintegrated, thus exposing the fine ashlar masonry behind (see Fig. 18). The floor of the basin was formed of finely compacted gypsum slabs. Inside the basin were found fragments of painted plaster, with a dark

bluish green ground and reddish stripes. The sombre tones of these fresco pieces show that they belonged to the earliest style of fresco painting represented in the Palace—nearer in date to the Kamáres than the developed Mycenaean Period. It had no doubt decorated some part of the original superstructure of the bath.

It will be seen that this Northern Bath with its descending stairs, parapet and column base, and the fine gypsum lining of its walls, presents some obvious analogies to the smaller basin on the south side of the Throne Room. There is, however, an essential difference. The arrange-

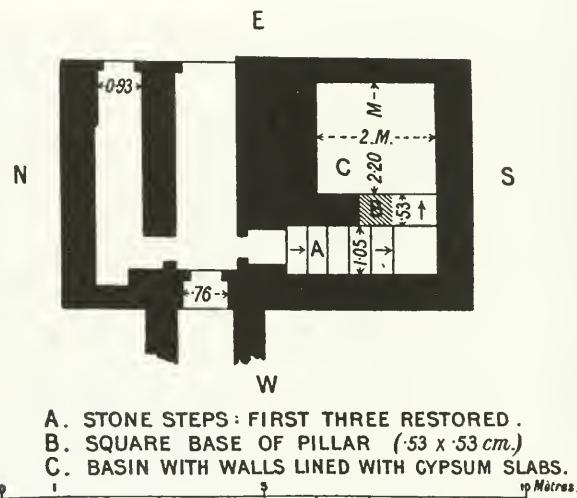


FIG. 19.—PLAN OF SOUTHERN BATH.

ment of the Throne Room with its triple columns and the light-well beyond represents the essential type of the Cretan Megaron as already noted above. In the Hall of the Colonnades to be described below we shall see on a much larger scale the same system of a parapeted staircase descending to the light-well in front of the three supporting columns of the Megaron, but the rain-water that fell into this instead of being collected made its escape through a drain. In the case of the Throne Room on the other hand the light-well has been used as an *impluvium* and the space under it is sunken so as to serve as a kind of shallow basin, perhaps for some foot-washing function. The bath here in fact—if such we may describe it—is subsidiary to the chamber. But the Northern Bath with

its much larger basin belongs to a different category. In this case the bath is evidently the principal object. The small adjoining room is quite secondary.

This type of the stone basin with descending stairs, parapet and pillar has now found other parallels. In the extreme south-eastern Palace region there was this year discovered another small bath of the same general plan, preceded by a small anteroom, or rather a double gallery, which is partly also a passage way (Fig. 19). The basin was here 2·20 metres square, lined and paved as usual with gypsum slabs. It was approached by a stepway provided with a separate door and flanked by a parapet ending in a square pillar. As there were only four steps down from the doorway the depth of the water in the basin must have been very shallow and here too was probably used in the oriental fashion for washing the feet. A small chamber of much the same construction with a doorway, four steps flanked by a parapet ending in a column base, and a shallow square basin has now been discovered by the Italian Mission in the Palace of Phaestos.<sup>1</sup>

A common peculiarity characterises all these basins. There is no visible inlet or outlet for the water. In the case of *impluvia* like that beside the Throne Room the rain-water collected from the roof may in certain seasons of the year have provided an adequate supply. But in the hot summer climate of Crete with its long droughts, these basins could not have been permanently filled in this way. It seems probable that the water was in most cases introduced into them by means of slave labour, and that when this became foul the bath was emptied by the same agency.

#### § 21.—DISCOVERY OF ALABASTER LID WITH CARTOUCHE OF HYKSÔS KING KHYAN AND LAPIS-LAZULI CYLINDER.

Bordering to the west on the later walls above the Northern Bath and forming part of one system with them were other later structures of the same rubble masonry. About 6 metres from the borders of the bath-basin on this side a wall of this kind abuts at right angles on the Upper Terrace foundations described above. This rubble wall, which runs north, shows on its western face the lower part of a painted stucco dado with blue and

<sup>1</sup> *Lavori eseguiti a Festos dalla Missione Archeologica Italiana. Relazione del Dott. Luigi Pernier* (Roma 1901), p. 16, No. 19 on the plan.

yellow bands, while from beneath this, at a level of 60 centimetres below the level of the top of the neighbouring Terrace Wall, jutted out parts of a cement pavement. We have here then the remains of a Mycenaean floor-level contemporary with that showing the painted stucco walling and clay pavement above the south margin of the bath-basin.

The wall-foundations went down about 30 centimetres below this

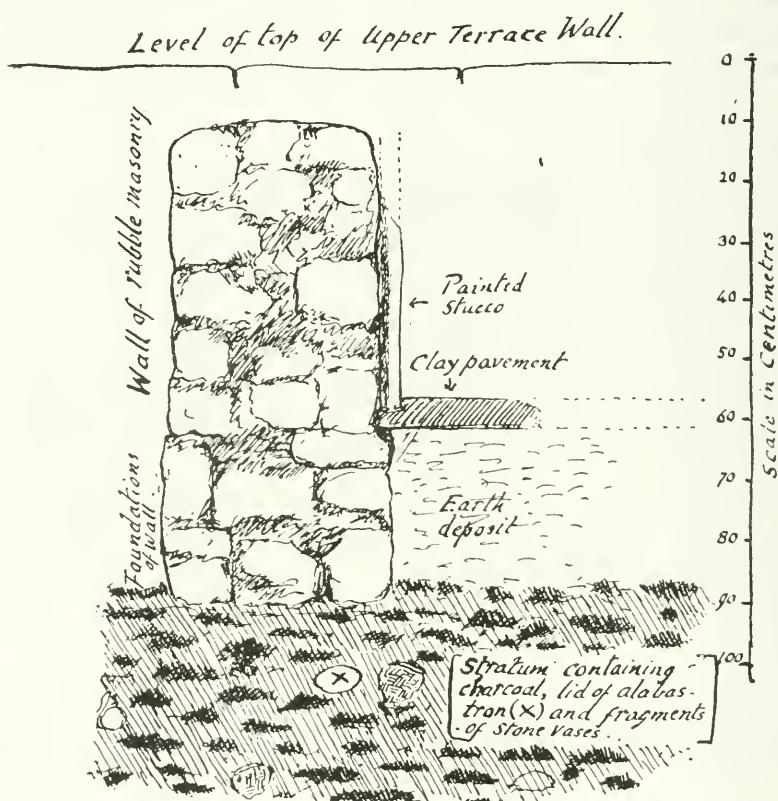


FIG. 20.—SECTION SHOWING STRATUM CONTAINING EGYPTIAN LID WITH MYCENAEAN WALL AND FLOOR LEVEL ABOVE.

floor-level, and rested on a well-marked archaeological stratum (Fig. 20) containing a large proportion of charcoal and representing the burnt remains of an earlier structure.

In this deposit immediately under the Mycenaean wall-foundations, at a depth of 40 centimetres below the later floor-level, and at a distance of 3

metres from the Terrace Wall, a remarkable discovery was made. This was the lid of an Egyptian alabastron upon the upper face of which was finely engraved a cartouche containing the name and divine titles of the Hyksôs King Khyan (Fig. 21).

The inscription, about which there is no difficulty, reads *Ntr nfr-*

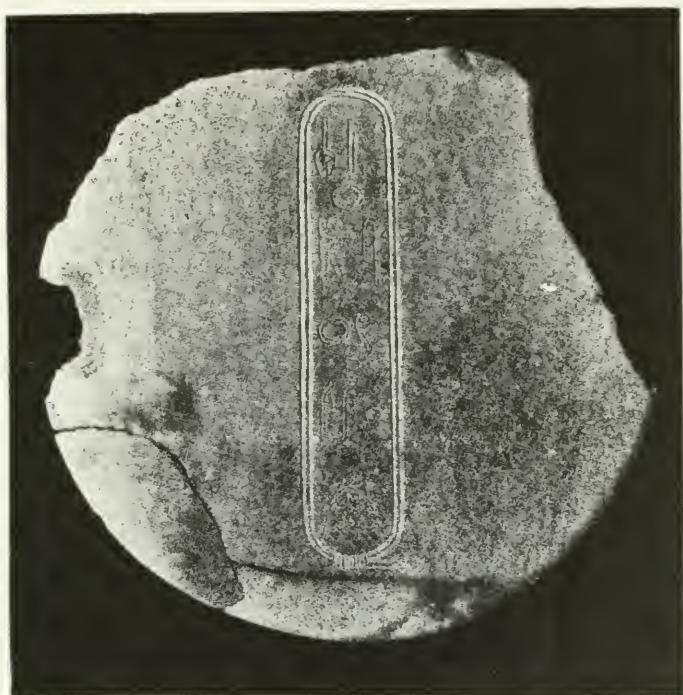


FIG. 21.—LID OF ALABASTRON WITH CARTOUCHE OF HYKSÔS KING KHIAN.

*s. wsr-n-R<sup>4</sup>, s R<sup>4</sup>, Hy'n<sup>1</sup>—“The good God Suserenra, son of the Sun Khyan.”*

The appearance in this early Palace stratum at Knossos of a record of King Khyan, is of exceptional interest from the fact that another monument of his, a lion of black granite, now in the British Museum, was found as far afield as Baghdad. In Egypt itself, with the exception of some scarabs

<sup>1</sup> I have followed Mr. F. Ll. Griffith's transcription, *Archaeological Report of the Egyptian Exploration Fund, 1900-1901*, p. 37. Mr. Griffith informs me that the form of the user sign seen in this inscription is not found elsewhere “except occasionally in the cartouches of the clearly Hyksôs Apopi and of Rameses II., who may have imitated it.”

and two cylinders, the only records of this King are the base of a statue at Bubastis, and his cartouches on a black granite block at Gebelen.<sup>1</sup> The *Ka* name of Khyan *anq adebu* "embracing territories"<sup>2</sup> and his further title "ruler of foreign peoples," as well as the Baghdad lion, point to extended dominions. In this latter title, *Hg-k's-wt*,—also borne by another Hyksôs prince—a plausible derivation for the name "*Tkeow*" itself has been found.<sup>3</sup>

The name of Khyan like that of other Hyksôs rulers appears to be Semitic. The suggestion has been made that Khyan is to be identified with the XVth Dynasty Hyksôs King *Iavias* or *Iavvas*, whose name is taken from Manetho by Josephus.<sup>4</sup> In that case his date would be about 1800 B.C.<sup>5</sup> In any case this is the earliest monument of a King of Egypt yet found on an Aegean site. It seems probable from the occurrence of this alabaster lid in the "pre-Mycenaean" stratum of the Palace at Knossos that its Minoan lord was in direct relations with the Hyksôs King. In the Egyptian monument found in the early stratum of the Central Court during the preceding campaign, we may see further evidence of very early Egyptian relations, if, as is the opinion of most Egyptologists, this must be referred to the period of the XIIIth Dynasty.

The well-marked deposit in which this lid occurred, contained numerous fragments of stone vases, which differed both in their form and decorative reliefs from the stone vases of developed Mycenaean style found in some of the chambers. The outer surface of these vases was covered with a very realistic plait-work in relief—in fact a complete stone imitation of basketry. One vase that it was possible to restore, presented a pear-shaped outline with a small base and a fairly wide mouth surrounded by a ring in

<sup>1</sup> See Petrie, *History of Egypt*, i. p. 118 seqq. Professor Petrie on the ground of his scarab style was inclined to place the date of Khyan as early as the Tenth Dynasty. But as is pointed out by Mr. Griffith, *loc. cit.*, the excavations of Mr. Mace and Mr. Garstang have now shown that this group of scarabs must be placed between the Twelfth and Eighteenth Dynasties. Mr. Percy Newberry who has been collecting further materials regarding the Hyksôs scarabs informs me that he has arrived at the same conclusion. A general consensus of Egyptologists now brings down the reign of Khyan to the Hyksôs period, and it must be said that the evidence of the Knossos find confirms this conclusion.

<sup>2</sup> Petrie *op. cit.*, p. 120.

<sup>3</sup> W. Max Müller, cited by Griffith, *loc. cit.*

<sup>4</sup> Mr. Griffith remarks, however, that none of the other scarab kings can be identified with names in the Josephus list.

<sup>5</sup> According to Petrie's chronological table, *History of Egypt*, i, 236, the approximate date of Ianius would be 1837 to 1787 B.C.

prominent round relief. The plait-work grows gradually smaller towards the base of the vase. It is interesting to note that stone-vases with raised plait-work ornaments are very characteristic of the earliest dynastic period of Egypt, as illustrated by Mr. Petrie's most recent excavations in the Royal Tombs of Abydos.

It has been pointed out above that, if Khyan and the Hyksôs King, Ianias of Manetho and Josephus are the same persons, the date of the alabastron must probably be referred to the latter part of the nineteenth, or the beginning of the eighteenth century B.C. The minimum date to which it is possible to refer it, can in any case hardly be lower than 1700 B.C. In the absence of strong evidence to the contrary we may conclude that the alabastron bearing the name of a king, whose records are so rare in Egypt itself but whose foreign relations are known to have been so extensive, reached the Palace of Knossos during his lifetime. On the other hand, the early phase of Mycenaean civilisation represented by the chamber built above the earlier stratum in which the lid lay, shows many points of contact with the Egypt of Thothmes III. Yet this later structure, which may thus be taken to go back to the fifteenth or sixteenth century B.C., was separated by over a foot of deposit from the more ancient Palace layer. From this evidence alone we may conclude that the partial catastrophe of which we have here the traces, in all probability took place at an earlier date than the minimum time-limit above indicated. These arguments equally apply to the original upper rooms of the adjoining bath chamber, which must have been destroyed and the basin itself choked with their débris at the same time. The characteristic structure of that chamber, with its fine gypsum slabs, belongs therefore to a period anterior to the approximate date of 1700 B.C. This result has a very important bearing on the date of the early part of the Palace fabric as a whole, which corresponds with that of the bath-chamber.

These chronological conclusions may find support from a further discovery made in the space intervening between the deposit containing the lid and the back of the bath. Here were the remains of a solidly-cemented rectangular receptacle, apparently a cistern. It was of rubble structure, belonging to the same Mycenaean date as the later walls on either side of it, and a wall abutting on its south face showed the usual wall-stucco still clinging to it.

At the base of the western side of this cistern, about two and a half

metres from the spot where the engraved lid was found, and embedded in the rubble material, was a cylinder of lapis lazuli, mounted at each end with gold caps bearing filigree decorations. The cylinder had evidently got into its position at the base of the Mycenaean wall from an earlier deposit, perhaps not far removed in date from that containing the relic of Khyan.

The cylinder itself seems to represent the prototype of a characteristic Hittite series. It is divided into two zones, a larger below with mythological scenes and a smaller band above showing winged monsters, one of them a sphinx, and disks with or without inner radiation. The lower zone shows a beardless male figure in a long flounced robe between two groups, one of the man-bull Hea-bani and a lion crossed, the other of a lion and a bull also crossed, while the circuit is completed by Hea-bani grappling with another lion. The style of the mythological design on the lower zone fits on to the late Babylonian series and shows no trace of distinctively "Hittite" or Syro-Cappadocian elements. On the other hand the upper band with its winged monstrous forms is clearly transitional.

#### § 22.—THE NORTHERN ENTRANCE WAY AND THE ADJOINING REGION TO THE EAST OF IT.

The continued excavation of the Northern Entrance way has led to further developments which upset several of the conclusions suggested by last year's preliminary work on this part of the site. Two pieces of badly constructed wall projecting from the bastion on the west did not, as was first supposed, rest on the road level but were much later structures, built when the original passage had been covered by a thick deposit of earth. This later work having been removed the passage way was found to descend to a much lower level. The bastion itself reached down to a depth of 3·50 metres from the summit of the wall, with seven courses of good masonry. Seven courses were also uncovered of the opposite east wall which went down to the same depth. In the course of this excavation numerous fragments of Mycenaean pottery were found and some pieces of painted stucco relief including a spiral rosette forming part of the same decoration as that found last year, as well as another part of a bull's leg showing black spots on a white ground.

It had been supposed last year that the entrance way extended the

full width,—about 5 metres<sup>1</sup>—between the western and eastern walls, and from the step-like arrangement of some blocks in the centre, it further looked as if the whole had been a step-way. Both these conclusions are now shown to be erroneous. The actual entrance way proved to be a passage along the western wall only 2·10 metres in breadth. This was bounded on the other side by a lower wall rising in steps, the well-cut western face of which, together with the plinth at its base, symmetrically corresponds with the west wall opposite. This graduated wall, which on

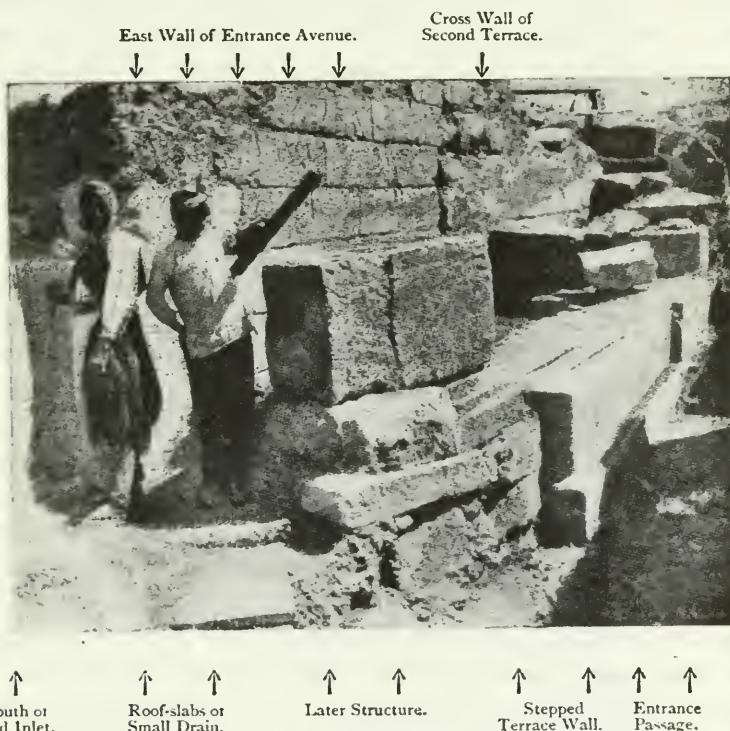


FIG. 22.—SECTION OF NORTH ENTRANCE WAY SHOWING EAST WALL AND STEPPED WALL OF TERRACES.

its east face had been left rough, proved to be the supporting wall of a series of small terraces which also rose in steps marked by cross-walls—these terraces filling the space between the entrance way and the high eastern wall to which it was originally thought to have extended. That

<sup>1</sup> Mr. Mackenzie gives the exact measurement as 4·95 metres.

the terraces were open above, is made probable by the discovery, at the foot of the lowermost, of a stone drain running into the larger *cloaca* which follows the course of the entrance way itself. For what did these terraces serve? It would be quite in keeping with Minoan taste as illustrated by the frescoes on the palace walls, to suppose that these earth platforms rising step-wise beside the entrance way served as small garden-plots, planted perhaps with palms and flowering shrubs.

On the west side of this entrance way are two elongated bastions, separated by a small gap which, as suggested in the preceding Report, might have been used by a sentry. The northern face of the upper of these two bastions—which is rendered visible by the gap—is seen to be provided with a plinth and to have been originally an exterior wall. It further appears that it is in line with the south wall and doorways of the North Portico—and thus with a line of wall—partly inner terrace, partly exterior—extending to the north-west angle of the building (see Fig. 23). A break corresponding with this is seen moreover, in the terrace wall on the other side of the entrance way. It therefore appears that the bastion to the north of this break and the lower continuation of the terrace walls on the other side are somewhat later additions, though still belonging to the finest part of the building. The second, or northern bastion, one of the best pieces of construction uncovered on the site, was built against and partly over a rougher wall running from south to north, which seems to have been the original supporting wall of the Northern Piazza on this side.

Beyond the Northern Bastion the architectural evidence becomes very complicated. (See Plan : Fig. 23.) An opening here appears in the west wall line of the Entrance Way opposite the blind inlet on the eastern side, and perhaps like it intended to serve as a place for guards to sally out from upon hostile intruders. Its mouth had been blocked by a later wall. On the northern side of this opening a door jamb is visible, and on the opposite side of the Entrance Way is another answering to it, somewhat out of place.

Beyond this opening a further section of the west wall, of good construction, extends 5 metres to another smaller break, perhaps originally giving access by means of stairs to the Northern Piazza. At this point the Northern Entrance Way was found to be entirely barred by a cross-wall. Since however this is not so well built as the western side wall on which it abuts, and since the further course of the Entrance Way and of

KNOSSES • PLAN OF THE NORTHERN ENTRANCE

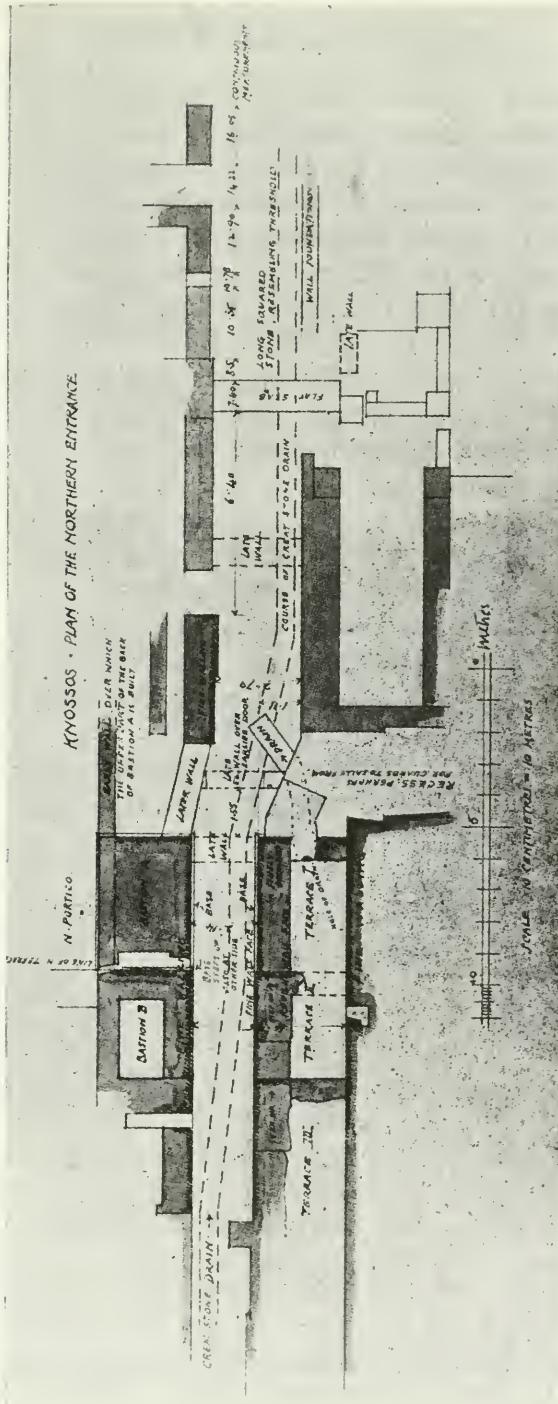


FIG. 23.—PLAN OF THE NORTHERN ENTRANCE.

the drain beneath it continues uninterrupted beyond this point, it is obvious that this cross-wall represents a later block. About 5 metres north of this a flat slab, the object of which is uncertain, lies across the entrance passage from wall to wall. The western wall continues beyond this point and is composed of good limestone blocks resting on a plinth. The great stone drain or *cloaca*, which here follows the eastern border of the Entrance Way, loses itself at a point 36 metres (120 feet) distant from its upper opening.

The eastern wall of the lower part of the entrance passage from the blind inlet onwards is also preserved, but is not of such good construction as that on the west side. East of it again are two elongated chambers that have the appearance of Magazines. From their proximity to the Northern Entrance it is possible that these should be regarded as stables for the horses and chariots which occupy such a prominent place in the Palace archives.

Eastwards again a line of wall which forms the back-wall of these elongated chambers is continued to another projecting bastion with a narrow door opening. This doorway leads into what appears to have been a short gallery, the west wall of which is constructed of good limestone blocks. It seems to have led to two flights of steps, one directly facing, of which traces only are preserved, ascending south, the other, of which four steps remain,<sup>1</sup> approached by a turn to the east. The structure here has been a good deal dismantled, but it looks as if we had to do with a postern gate giving access to the north-east quarter of the Palace from the north.

From this point the Northern Wall becomes no longer traceable, and the investigations so far made on this side lead to the conclusion that the north-eastern angle of the building has been completely denuded. North of this point, however, there came to light a Magazine with remains of large pithoi and part of a large structure which may eventually be found to stand in direct connexion with the Palace.<sup>2</sup>

### § 23.—THE NORTH-EAST MAGAZINES.

About 9 metres south of the easternmost section of the North Wall, and within the angle which it makes with the east wall of the Entrance

<sup>1</sup> These steps are 1·50 metres wide, 1·15 high and .50 deep.

<sup>2</sup> The star and branch signs are visible on its blocks.

Passage, quantities of plain clay vases of various forms began to appear, only a few centimetres from the surface of the ground. It was found that these vases were methodically arranged within the rubble walls of a group of Magazines forming a square separate enclosure with a single entrance. These Magazines were grouped in uneven divisions on either side of a narrow gangway 90 centimetres in width—an arrangement which recalls on a much smaller scale that of the Magazines of the Palace at Phaestos, except that there the chambers on either side of the central gangway were of equal dimensions. A similar arrangement may be traced back on Egyptian soil to the earliest Dynastic Period.

Like the Magazines themselves, the vases here were of much smaller dimensions than the great pithoi of the Magazines of the western Palace border. Except for a limited class with brown streaks running down from their rim, the walls of these vessels were plain and unpainted. They were arranged along the walls in regular rows and piles, those with broad rims socketed into one another and the cups in *rouleaux*. A general idea of their prevailing types and distribution may be gathered from the accompanying sketch-plan (Fig. 24).

Except where these vessels had been cracked or crushed by the weight of the superincumbent earth, they stood piled in their places absolutely intact, as when left by their Mycenaean overseer. It is obvious from this, and from the fact that the whole lay immediately under the surface of the ground, that no excavation had ever taken place in these chambers. That there was so little earth left to remove was due to the natural process of denudation, which has gone on for the last 3500 years or so at this part of the north-east slope.

It will be seen that in their plain fabric, as well as in some of their typical forms, these vessels correspond with those found in the chamber near the south-west corner of the Palace, upon one of which was found the graffito inscription in linear characters. Here as there too the survival of the older Kamáres types is perceptible, but in a somewhat degenerate form and bereft of the beautiful painted decoration which characterises the vases of the Kaselles.

In the case of the chamber on the south-west corner an indication of the Mycenaean date of this rustic ware was given by the inscription in advanced linear characters, identical with those associated elsewhere with Mycenaean gem impressions found in the Palace. In the present instance

the same indication is supplied by the contents of the small inner chamber, 5 in the sketch plan, opening from the back of Magazine No. 4.

In this inner chamber was found, '70 centimetres beneath the surface, a

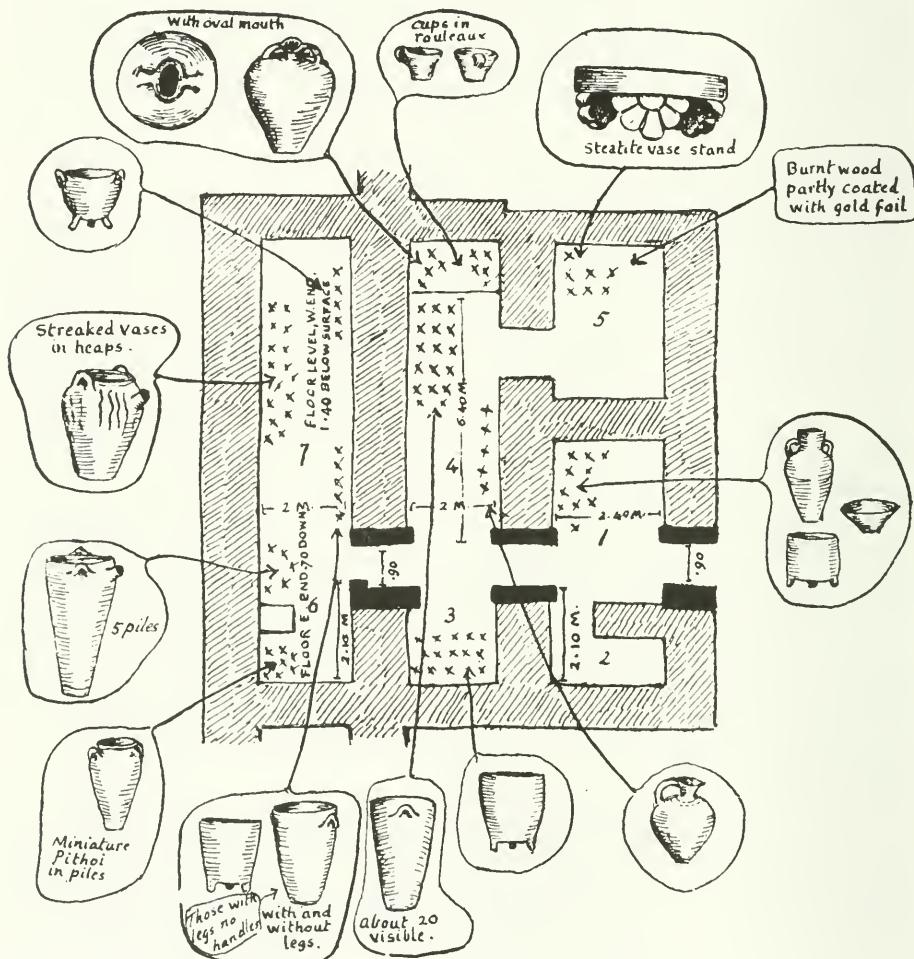


FIG. 24.—THE NORTH-EAST MAGAZINES AND CONTENTS.

very beautiful tripod-stand of dark steatite, the legs of which<sup>1</sup> were designed in the form of palmettes or half rosettes of the Mycenaean type. Below this were remains of charred wood coated with gold foil.

<sup>1</sup> Two of the legs were damaged.

It is obvious that the tripod-stand was designed as a support for some vase of stone or metal of a very different class from the rustic pots in the adjoining Magazines. The one deposit speaks of wealth and luxury, the other connects itself with the needs of a quite lowly condition. We know, besides, what magnificent painted ware was at this time in use among the Knossian lords. It looks as if these stores of rustic vessels, representing the survival of the indigenous potters' style, were kept to supply the wants of a numerous colony of handicraftsmen, and perhaps of slaves, living within the Palace walls. Whatever new elements may have intruded themselves among the dominant caste, these humbler denizens, as the traditional types of their pottery show, belonged to the old Eteo-cretan stock.

East of these Magazines, and between them and the Eastern Terrace Wall, to be described below, was a great heap of sherds and small pots, for the most part of plain earthenware, probably belonging to the same, more or less servile class. From the abundance of small clay cups of the usual type found in Cretan deposits of advanced Mycenaean character, it is probable that this waste heap belonged, in part at least, to a somewhat later period than the contents of the Magazines. Near it was found the small steatite relief exhibiting an archer.

#### § 24.—THE NORTH-EAST HALL AND CONNECTED ROOM SYSTEM.

South of the small Magazines described in the preceding section, for over sixty metres, stretches a continuous line of galleries and chambers, the western limits of which mark the original line of the Central Court on this side.

Immediately bordering on the Magazines is a group of rooms forming parts of a single connected system. The eastern member of this group is a rectangular hall, of the east and south walls of which only indications remain. The original interior dimensions of this north-east hall were about 9 by 6·50 metres, and at a distance of 1·10 metres from its north wall are two column bases 70 centimetres in diameter.<sup>1</sup> Near these, at the north end of the hall, opens one of the usual double doorways,<sup>2</sup> with gypsum jambs,

<sup>1</sup> The column bases are 1·40 metres apart.

<sup>2</sup> The south door jamb and a central one with a double reveal had been preserved. The northern door jamb, however, and the small adjoining return of the wall, had disappeared. The width of the south doorway was 82 centimetres.

leading to a smaller inner chamber of oblong shape. The pavement of the North-East Hall is of gypsum cement, and near the floor level were found one or two Mycenaean vases. One of these is a somewhat low "Stirrup" vase with a design of a fish, and of much better fabric than those described above exhibiting octopus designs. Another vessel is a cup which presents the early characteristic of having decorative bands of white as well as brown.

The small room to which the double doorway gave access had been somewhat obstructed by a later cross-wall running east and west, the base of which was 30 centimetres above the floor-level. In its original form however, the room had been of an elegant character, the lower part of the walls being covered with a dado of fine gypsum slabs about 95 centimetres in height, and the floor paved with the same material. This "Room of the Gypsum Dado" was 5·08 metres by 2·65 in dimensions. Near its north wall were found the remains of two steatite lamps of the ordinary kind with high columnar stands. An opening at the north end of the west wall of this room gave access, in front and to the left respectively, to two small Magazines or store-rooms. That to the left contained the remains of a small pithos, some two-handled jars of rustic fabric, resembling types found in the neighbouring North-East Magazines a small plaster seat and a tripod stand of the same material. The elongated store-room in front contained other rough pots representing the same Kamáres tradition as those of the small Magazines together with a vase belonging to an early Mycenaean class.

This arrangement of a room with small magazines opening from it is one that has been already met with in the western quarter of the Palace in the case of the Rooms of the Chariot Tablets, of the Column Bases and the Throne Room itself. Additional examples of the same arrangement will be seen in the "School Room" and other chambers of the eastern slope to be described below.

The North-East Hall apparently had its entrance on its eastern side, where it seems to have been flanked by a corridor running north and south. Near the south end of this, and at the south-east extremity of the hall, are visible four low steps ascending west, and indications of a passage leading hence round the outer walls of the group of rooms described above to the Central Court. Some five metres above the four steps preserved are traces of others turning north between passage walls of good limestone

construction. About the same distance further on the same passage takes another turn west, past a massive bastion, and thence by another angle seems to have found its way to a point near the upper opening of the Northern Entrance Way.

### § 25.—THE ROYAL GAMING BOARD.

Nearly opposite the lower opening of the North-East Stairs described above, against the east wall of the Corridor on which it abuts, and of which only remains of the lower courses exist, was made a very interesting discovery. Here, at a depth of 70 centimetres below the surface, some fragments of crystal and ivory were thrown up by the workmen from the earthy deposit. On careful examination these were found to belong to the end of a kind of inlaid board, the component parts of which were still largely in position.

The board lay somewhat unevenly near the paved surface of the Corridor, separated from it by a shallow earthen layer, into which, however, some fragmentary slabs had intruded. To raise these highly friable remains, embedded in the crumbly earth, from this irregular backing without breaking up the framework was a matter of extraordinary difficulty, there being no room in this case for the ordinary under-plastering that had been so effective in getting out the Cup-bearer fresco. As a preliminary measure it was found necessary first to surround the outer margin with a wooden framing, filling up the interstices with plaster. This having been successfully executed, and the edges of the board thus secured, wooden strips with plaster over them were gradually introduced below, as the irregularities of the broken slabs permitted. This part of the process was extremely difficult, and it was only after three days' work, and mainly owing to the skill and patience of my trained *formatore*, Kyrios Papadakis, that the whole was finally raised with the inlaid designs in the position in which they had been uncovered.

The framework had already suffered especially round the borders and at what may be called the upper end of the board, where the pick had originally disturbed it. Enough, however, remains of the original design to supply a correct idea of the whole arrangement of its essential parts.

In Fig. 25<sup>1</sup> the existing parts in position are given in a darker tone.

<sup>1</sup> From a coloured drawing carefully executed by Mr. Fyfe, who has completed the disintegrated and missing parts of the design in accordance with my suggestions.

but it must also be borne in mind that a great deal of the rest was found, though in a more or less disintegrated state. The outer zone, with the marguerites, had been entirely broken off; their fragmentary remains, however, were abundant, and as reconstituted above, form a natural frame to the design. The remaining parts of the nautiluses were also found detached, but their dimensions so exactly correspond with the vacant rectangular spaces on either side of the square containing the uppermost medallion, that their position may be taken as ascertained. The restoration of the interior of the smaller circles of the lower half of the board rests on more conjectural grounds. The board as completed is 0·965 metre in length and 0·553 wide, and it is to be noted that several of the component parts are exact multiples of the whole. Thus the diameter of the larger medallions answers to  $\frac{1}{6}$  of the length, that of the smaller medallions to  $\frac{1}{11}$ , that of the marguerites to  $\frac{1}{24}$ .

The framework of the board consists of pieces of ivory set and originally entirely covered with thin gold plate. A good deal of this gold foil is visible in the interstices and here and there are ragged pieces partly overlapping the face of the ivory plaques. It is possible that the gold had been worn away by use or it may be that at the time of the destruction of the Palace the superficial metal had been hastily and imperfectly scraped from the board. This chryselephantine framework contains a further mosaic of strips and disks of rock crystal, the crystal in turn being alternately backed with silver plaques and a blue paste formed of pounded lapis-lazuli-like glass, the Homeric *kyanos*, and both this and the silver plaques are underlaid with gypsum plaster. It is probable that for the support of the ivory framework there was also a wooden panel below, but the traces of this had entirely disappeared. Some pieces of ivory reliefs, including smaller nautiluses for which there is no place on the board itself, point to the probability of there having been ornamental sides below; the analogy moreover of Egyptian draught-boards and of the Mycenaean specimen found at Enkomi in Cyprus suggests that the board itself may have also served as the top of a box that once contained the pieces of the game.

The daisies or marguerites of the outer border had central bosses consisting of convex disks of rock crystal, set probably on a blue paste background. Within this border round the central and lower part of the board was a second band of plaster coated with blue paste or *kyanos*, some

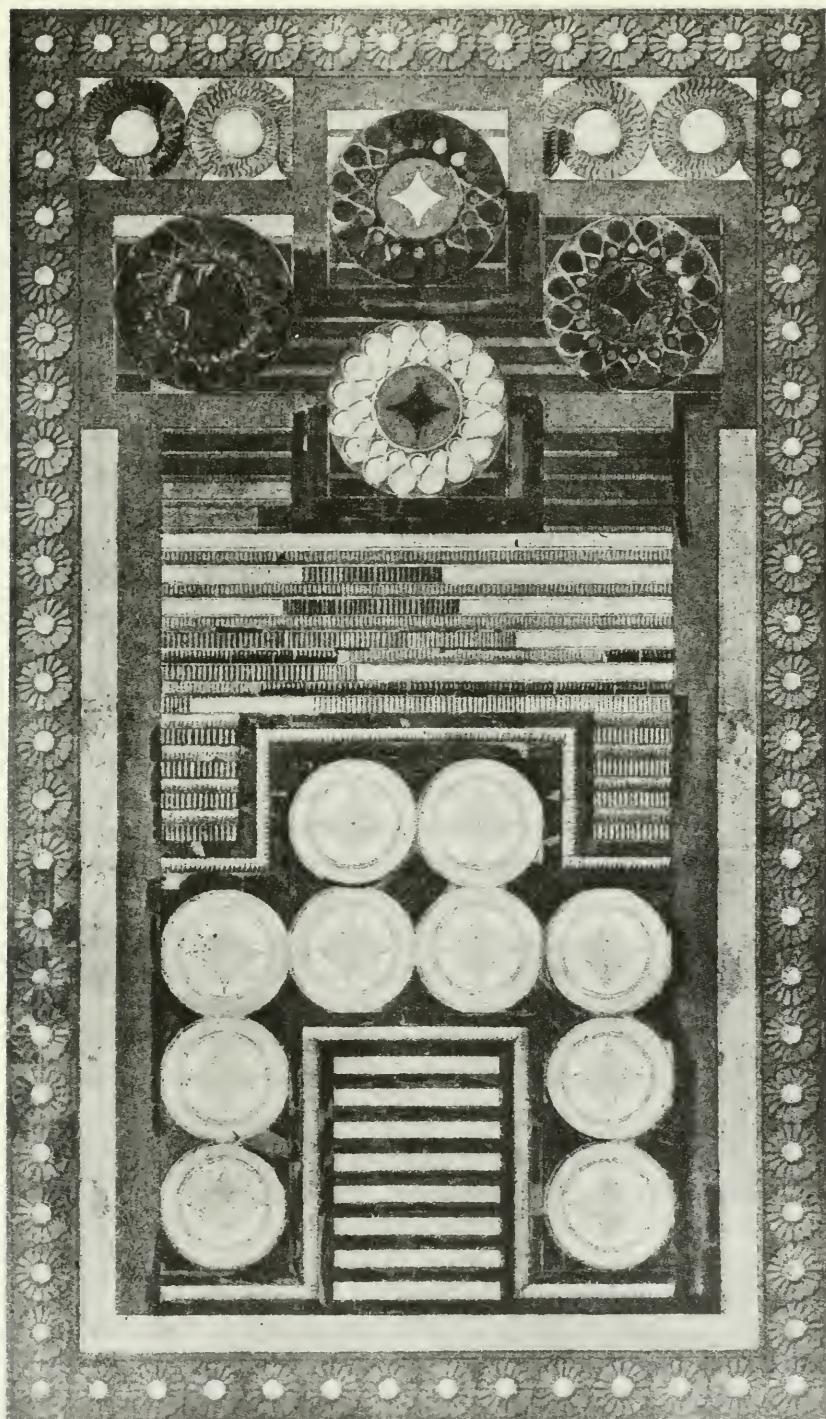


FIG. 25.—THE ROYAL GAMING BOARD.

sections of which were preserved in position. There can be little doubt that these had been covered with crystal plaques that had been removed.

Beginning now at the top of the board, the angles of the beautiful nautilus reliefs were set round with crystal plaques, one of which was found with traces of its original *kyanos* backing. Like the marguerites the nautiluses had also been adorned with a central boss of crystal. There next follows a very beautiful group of four large medallions inserted among crystal bars backed with silver plates. The curving cloisons of these medallions are formed of ribbed ivory to the surface of which the original coating of thin gold plate was still partly adhering. The sockets thus formed are set with petal-shaped plaques of crystal, the outer row entirely lined with silver plates, the inner with blue eyes of *kyanos* inserted in the silver. The inner circle of these medallions encloses a design—borrowed from contemporary Egypt—composed of *vesicae piscis* of ivory surrounding a central plate of silver-lined crystal with incurved sides. Then follow eleven alternating bars of ribbed crystal and ivory. The crystal bars, which are flat, are backed with silver, the ivory are bossed and are set and partly covered with thin gold plate which originally adorned their whole surface. Eight shorter bars of crystal but with a *kyanos* lining fill the spaces on either side of the topmost section of the lower division of the board.

The principal feature of this lower division of the board is a two-winged compartment, the flat ivory plaques of which enclose ten circular openings. The medallions originally held by these had been broken out, though here and there traces of their original plaster backing were visible. In the centre of one, however, the uppermost on the left wing, were remains of silver oxide, which suggested the former existence of a plate with incurved sides like those forming the centre of the upper medallions. It is possible that the *vesicae piscis* round this were of *kyanos*. The central parts of these medallions, the design of which, except for the blue compartments, would thus have resembled those above, seem to have been covered with crystal disks, though a fragment only of one of these is preserved. It looks as if the disappearance of these medallions was due to the desire of some plunderer at the time of the great catastrophe of the Palace to secure these crystal disks. The ivory plaques enclosing the lower medallions are bordered above and below by bossed and ribbed crystal bars overlaid

on *kyanos*. The remaining space of the lower division of the board is filled with alternating flat bars of ivory, once gold-plated, and of crystal backed with the same blue vitreous paste.

The medallions of the lower division of the board give a key to its purpose, and clearly indicate that we have here the table of some kind of game. A certain analogy is suggested by Egyptian draught-boards and by the variant type of the same presented by the Mycenaean board of beautifully carved ivory found in a tomb at Enkomi or Old Salamis.<sup>1</sup> In the "Lapidary's Workshop" and elsewhere on the site several objects of steatite, bone, and other materials were found, which seem to represent pieces of games, but unfortunately none occurred in juxtaposition with the board itself. Considering the comparative fewness of the circles on which to move the pieces it seems possible that dice also formed a feature of the game, but further discussion of its character must be reserved for a future occasion.

In its original condition, with its ivory bands and reliefs still plated with gold, and its crystal plaques and bosses intensifying the glint and glow of the silver foil and cerulean paste beneath them, this gaming board must have been of truly royal magnificence. The intarsia work, moreover, here found in position and applied to the scheme of a game throws a new light on more fragmentary remains of the same kind found in the Palace of Knossos itself and in the royal tombs of Mycenae. Crystal plaques of similar forms to those of the table were found on the Throne Room floor associated with roundels of enamelled terracotta, the design of which recalls the central pattern of the medallions of the gaming table.<sup>2</sup> In my former Report<sup>3</sup> the close resemblance of these to objects in similar materials found in the Fourth Shaft Grave at Mycenae was already noticed. There can be little doubt, in the presence of this new evidence, that these belonged to boards of the same kind, and that a gaming table was such an indispensable possession of Mycenaean kings that it followed them to another world. This close resemblance between these Knossian relics and those from the Fourth Akropolis tombs at Mycenae is also,

<sup>1</sup> A. S. Murray, *Excavations in Cyprus*, p. 12, Fig. 19, and cf. *J.H.S.* xvi. (1896) p. 288, seqq. where Professor Ridgeway ingeniously compares the Greek game of *Polis*.

<sup>2</sup> There were too many of these roundels for them to have been all for the board on which the game was played, but a certain number may in this case have formed part of the ornament of the sides of the box below.

<sup>3</sup> See the supplementary note on the fly leaf at the beginning of the Report for 1900.

as already noted,<sup>1</sup> an interesting indication that the destruction of the Palace was approximately contemporary with this interment.

### § 26.—THE ROOM OF THE OLIVE PRESS.

The Corridor of the Gaming Table leads to a spacious room about 9 metres in length by 7 broad, the cement floor of which on its western side was about 1·40 below the surface. This room contained what appeared to be two press-beds of unequal sizes with runnels leading from them. The smaller of these was drained by a tile channel, the larger by an elongated grooved slab of limestone. The larger press-bed itself was a square limestone slab (1·10 × 1·20 metres) with a square shallow basin opening on the runnel, the groove of which was 43 centimetres wide and 10 deep. This stone channel leads through a door opening into the small area to the north of the chamber where, at a distance of 4·70 metres from the press-bed, it debouches on the remains of an elongated vat, originally lined with terracotta.

To one having a personal acquaintance with the remains of the great Roman oil fabrics of the Tripolitan district of North Africa,<sup>2</sup> of which stone press-beds and runnels accompanied by vats are a constantly recurring feature, there seemed to be little doubt that we had here to do with a Mycenaean press of the same kind. It is true that in the case of the African presses and others observed by Messrs. Paton and Myres<sup>3</sup> in Caria and the Greek islands, the stone bed itself is simply grooved while here the whole central part is slightly sunk. But the difference has little practical importance, since a small detached slab with a free space left round it, answering to the groove in the other type as an outlet for the juice would equally serve the purpose in view. This simpler type as represented by the Knossian example is in fact also known elsewhere. An ovoid example was found by Mr. J. L. Myres and myself at Astrítsa<sup>4</sup> a Cretan hill site a few hours to the south-east of Knossos,

<sup>1</sup> *Loc. cit.*

<sup>2</sup> I visited these in 1895 in company with Mr. J. L. Myres who, for the first time, explained the true meaning of the so-called "Megalithic Monuments" of Tripoli in Proc. Soc. Ant. 1898, p. 280 *seqq.* For the North African oil-presses cf. too Tissot, *Afrique Romaine*, i. p. 294. The presses may well represent a still earlier Libyan tradition.

<sup>3</sup> *On some Karian and Hellenic Oil-Presses*, *J.H.S.* xviii. (1898), p. 209, *seqq.*

<sup>4</sup> *J.H.S.* loc. cit. p. 214, Fig. 6.

and a round Greek press-bed of the same type, with a sixth century inscription, was found by Mr. Cecil Smith at Klimatovouni in Melos.<sup>1</sup>

In order to supply a fulcrum for the end of the wooden beam by means of which the bags of olives set above the stone bed were pressed, it was necessary to obtain a powerful support, and this may have been supplied by insertion into the west wall of the Chamber.<sup>2</sup>

Although grapes are pressed by an analogous method in large crates or baskets in parts of Greece the great volume of juice would have required a larger bed than those before us. It seems more reasonable therefore to see in these the remains of olive presses. It is evident from the numerous lamps found in the building as well as in the houses outside, that oil formed an important commodity in Mycenaean Knossos. The signs of conflagration about the upper vats in the Fourth Magazine, have been already noted as indicating a considerable storage of oil, which probably formed the contents of a large number of the pithoi discovered. The discovery recorded by Tsountas of a jar full of olive stones at Tiryns, and more isolated finds of the same at Mycenae itself had already made it certain that the culture of the olive was known on the mainland of Mycenaean Greece.<sup>3</sup> That it was known at the same or even an earlier period in Crete is now made certain by a similar discovery of a store of olive stones in the Palace of Phaestos by the Italian explorers. At Knossos we find olive sprays appearing as a motive of decoration both for frescoes and vase paintings, and apparently also on the pictographic tablets in a commercial relation. Hehn's idea that the oil of Homeric Greece was exclusively an importation from the East has now no longer any probability in its favour.<sup>4</sup>

<sup>1</sup> *Loc. cit.* p. 215, Fig. 7.

<sup>2</sup> Compare the arrangement of a press near Latmos.—*J.H.S.* xviii. p. 212.

<sup>3</sup> Tsountas, 'Εφ. 'Αρχ. 1891, p. 15.

<sup>4</sup> It would even appear that already in Mycenaean times the olive was cultivated in Sicily. In the Necropolis of Cozzo Pantano near Syracuse, the tombs of which contain so many imported Mycenaean objects, in addition to shallow high pedestalled vessels which seem to be a simple adaptation of the Mycenaean and Minoan lamps as seen at Knossos, was found a clay vessel of native fabric, the decoration of which was supplied by the impress of actual olive leaves. (Orsi, "Necropoli Sicula presso Siracusa," *Mon. Antichi*, ii. 1893, p. 21, and Tav. 11, i. 1a.)

### § 27.—THE CORRIDOR OF THE BAYS AND ITS VASE DEPOSITS.

West of the recess in which the oil-vat is situated opens a small area which, as the remains of wall-foundations show, has not been preserved in its original condition. One of perhaps a pair of doorways is still in place opening from the end of the Corridor of the Gaming Board on this side. Opposite this, immediately under the east border of the Central Court, is a small chamber with fine gypsum paving and two side walls of massive limestone blocks. These walls form part of a series of buttress-like projections running along this line, and their massive construction was no doubt expressly designed to support the, in part, artificial terrace of the Central Court on this side. Both this and a small chamber adjoining it on the north, showed the remains of a back wall, the original line of which could only be made out by the limit of the pavement in that direction. On the other hand these rooms, like the bays that succeed them on the same terrace flank to the south, were filled with a confused mass of tumbled blocks largely due to the falling in of their back walls. This phenomenon explains the need of the buttress-like structures along the line.

To the south of the above-mentioned small chamber and the adjoining bay on that side, are two doorways, one leading to an elongated well-paved room, the other to a somewhat narrow corridor—1·42 metres in width—leading south beneath the terrace of the Central Court. Four buttress-like piers such as those described, jut out on the western side of the gangway leaving three square recesses.<sup>1</sup> From these it has been found convenient to call this passage “the Corridor of the Bays.”

The buttress piers vary in thickness from 1·42 to 1·54 metres, and jut out 2·70 metres; the southernmost, however, has been made 35 centimetres too short, and the deficiency in the masonry was made up by means of woodwork and plaster. There is, as will be seen, a great probability that these massive blocks of masonry not only served to prop up the terrace wall, but also originally acted as the supports of the pillars of a great Megaron above.

The corridor descends by two steps at the third pier, and a third at the fourth, where it opens on the end of the upper Corridor running

<sup>1</sup> These were roughly square but varied a little in dimensions. The first bay north was 2·70 by 2·80 metres, the second 2·70 by 2·85 while the width of the third was only 2·40.

from east to west, and at the same time on the middle landing of the main staircase to be described below.

The bays themselves had been partly used as storerooms, and on the floor of the first was found a large heap of plain pottery. Another deposit of similar vessels was also found in a kind of *loculus* or niche, in the wall opposite the third bay. This pottery was all of a "rustic" class, unpainted, and exhibited some local Cretan forms of a remarkable character. Among these were double pots set at the two ends of a flat base, their upper rims being connected again above. They are provided with perforated conical lids (see Fig. 26) and seem to be the forerunners



FIG. 26.—TWIN VASE AND OTHER VESSELS : GALLERY OF THE BAYS.

of a Mycenaean type peculiar to Crete. In another direction they present a still more striking parallelism with the twin cups set at the two ends of a similar clay base, but without the upper connexion, found in prehistoric Egyptian tombs.<sup>1</sup> The Libyan relations of Crete give a special interest to the parallel.

There were also single pots of the same form and similar perforated lids with double walls leaving a small circular interspace between the outer circumference of the vessel and a low inner receptacle which sometimes rises less than half-way towards the level of the outer rim of the pot (see Fig. 27). In some cases the upper part of the inner receptacle showed a row of perforations and there was also a boring at its base which went right through

<sup>1</sup> As for instance those of El Mahasna.

both walls of the pot. These perforations, repeated in the lid, make it probable that some material was burnt inside one or other of the cavities of



FIG. 27.—DOUBLE-WALLED POT AND OTHER VESSELS : GALLERY OF THE BAYS.

the pot, though whether the vessel was used for incense or, with charcoal, for some culinary purpose is not so clear.



FIG. 28.—KNOBBED VASES : GALLERY OF THE BAYS.

Another interesting class of vessels found in these repositories were vases of somewhat elegant modelling, though still with a plain clay surface,

the distinctive feature of which was their adornment with small knobs (Fig. 28). They had pointed lips, sometimes raised in the early fashion, and a very distinct ring—also a primitive characteristic—round their necks. Knobs are also found, though not so systematically applied, in the earlier painted class of Kamáres ware. As seen on these vases they singularly recall the studs of metal-work, and it is probable that, as in the case of many features discernible in the Kamáres class, they show the influence of metal-work prototypes.

#### § 28.—AREA OF THE SPIRAL FRESCO AND HIGH RELIEFS.

Between the east wall of the Room of the Olive Press and the end of the Corridor of the Gaming Board on one side and the southern bay of what is described below as the Eastern Terrace Wall on the other is a somewhat vague elongated space. The upper structures have almost entirely disappeared owing to the denudation of this part of the slope, and only a part of a floor level 70 centimetres below the surface, belonging to the latest Palace period, is traceable along the eastern side of the wall of the Olive Press Room. On this surface, and extending round the outer corner of the Olive Press Room, were ranged large numbers of rustic pots of the same general character as those of the North-East Magazines, the tripod types generally predominating. These lay only just below the surface of the ground.

The lower courses of the southern boundary wall of the area described are also visible, as well as a doorway flanked by massive blocks, opening on to the upper East-West Corridor. That this area, though at present so largely denuded, was once included in an important and brilliantly decorated columnar hall is evident from the remains discovered in two compartments below its original floor-level.

On the more northerly of these, from about 1·70 below the floor-level on which the tripod pots stood, were large masses of fresco exhibiting a grand spiraliform design of blue and black on a white ground, together with considerable fragments of plain red-faced stucco. Several fragments of painted bulls in stucco relief like those found near the Northern Entrance also came to light, including part of a hind leg, two hoofs, the tip of a horn, and the bushes of at least two tails. Near the wall separating this basement from the Olive Press Room, at a somewhat less depth, was found part of a

human limb in the same *gesso duro*, and a similar find accompanied by a fresco fragment was also made on the floor of the Olive Press Room near its northern wall. In the midst of the fresco remains in the basement space described there also lay two parts of column drums of a marbled grey material resembling granite.

The other compartment within this area, containing similar remains, lay under the wall separating it from the upper East-West Corridor. This compartment was not a mere basement space like the other, but lay for the most part beyond the edge of the Eastern Terrace wall, and over a small room belonging to the lower storey and characterised by fine paving slabs and a large pillar base. Above this base, marking the level of the upper floor, was a slab supporting another large block, the upper surface of which was visible above the soil before the excavation.

Here, at a depth of about a metre, were found a series of interesting fragments of painted stucco reliefs. Some of these were of a purely decorative and architectonic character, such as the top of a pilaster, and remains apparently of a ceiling design like that found near the Northern Entrance, consisting of spirals and rosettes. But the most striking objects were parts of human and other subjects in high relief, including portions of what seems to be the forepart of a Sphinx.

Among the fragments of human figures found were a right shoulder and forearm, a right hand, a left forearm holding a pointed vase, and the calf of a left leg. They seem all of them to have belonged to male figures, though the warm flesh colouring has almost entirely faded away. These "*disjecta membra*" were in considerably higher relief than those found on the south front and display an artistic perfection even beyond them. A distinctive feature of these reliefs is the great prominence given to the veins, which is carried out with an exaggerated realism that in places gives the surface of the limbs a varicose appearance. In the case of a right calf the sinuous lines of the veins seem to be somewhat conventionalised; on the other hand, on the back of a closed hand they are rendered with great fidelity to nature. Of all the fragments found, that representing the forearm of a man grasping the end of a pointed vase is the most remarkable (Fig. 29), the muscular development being rendered with extraordinary power. It will be seen that this represents a subject similar to that of the Cup-bearer fresco, and it is probable that the walls of the hall to which these stucco fragments belonged were covered with processional scenes



FIG. 29.—HIGH RELIEF IN PAINTED *Gesso Durso*: ARM HOLDING POINTED VA-

analogous to those of the Western Entrance. But the wall-paintings there discovered can convey only a faint idea of the artistic perfection achieved in these coloured high-reliefs. We seem to note a crescendo scale in the scheme of decoration, which here reaches its acme.

Nor can there be much doubt as to the character of the structure to which these painted reliefs and associated frescoes belonged. The area in which they were discovered forms the east end of a rectangle of which three additional sections are supplied by the Room of the Olive Press, and the long Chamber and Gallery of the Bays beyond it. We have here, in fact, outlined section by section in the walls and piers of the lower storey, the complete plan of a large upper Megaron of the "Minoan" type illustrated by a Hall of the Double-Axes to be described below, and which must have opened to the West on a level with the Central Court. The buttresses of the "Corridor of the Bays" seem to have been, in part at least, designed to support the westernmost pillars of this hall, and in the two marble drums found with the fresco and reliefs we may actually recognise parts of the columns which bordered the "light-well" of the Megaron at its eastern end. It is probable that there stood here the great hall of the Palace, exceeding even that of Phaestos in dimensions.

#### § 29.—THE STONE AMPHORAS IN THE SCULPTOR'S WORKSHOP.

Immediately to the north-east of the spot where the painted high reliefs were found was a small upper chamber with a floor level very near the surface. Here, close against the west wall of the room, at a depth of only 25 centimetres, there came to light a large stone amphora lying somewhat on its side (Fig. 30). It was composed of a kind of veined marble-like limestone, used for some other vases found on the site, and, except for the fact that a piece of the neck was broken in and one handle cracked, it was in an absolutely perfect condition, though the part of the side nearest the surface of the ground was somewhat corroded. The vase was 69 centimetres (about 27½ inches) in height and 2·5 metres (about 6 feet 8½ inches) in circumference. Its walls increased in thickness from 6 centimetres at the neck to 17 centimetres at the sides, and some idea of its massiveness and weight may be gathered from the fact that eleven men with ropes and poles with difficulty carried it down to the headquarters house below. The flat upper rim was decorated with a spiral band, and a similar band, with

the central coils rising up like rows of snail-shells, ran round the shoulders. The vase had three handles, decorated on their outer side in the same spiral form as the rim, and with their sides cut out into arched hollows, communicating by means of a small perforation. These recesses had evidently been



FIG. 30.—GREAT STONE AMPHORA.

intended for some metallic inlay, which, as there was no trace of oxydisation, was probably gold.

Both for size and magnificence this vase far excels any known stone vessel of the Mycenaean age. Like the chryselephantine gaming board it was truly a royal possession. One feature very noticeable in this vase

is that to see its form and decoration to advantage it must be placed on the ground. In this respect it shows an essential difference from great modern vases or from the marble urns of later Greek tombs, though even smaller types of Mycenaean vessels require the same position. The broad-bottomed gypsum vases with spiral reliefs round their flat rims, found on the floor of the Throne Room, were made to be looked down on in a similar manner.

The style of the spiralliform decoration on this large amphora is identical with that of these alabaster vases found on the floor of the Throne Room, and it must belong to the same approximate date. The latter vases had evidently been set out to be filled, probably with oil from a clay store-jar that was found beside them, laid on its side to facilitate the process, when the operation was apparently broken off by the great catastrophe of the Palace. There was a touch of Herculaneum or Pompeii about the situation in which these vessels were found, which lends a peculiar interest to a similar circumstance connected with the present colossal vase. For although apparently completed it had never been moved from the *atelier* of the artist. Close beside it, on the floor of the same small room which evidently served as a workshop, there stood, in fact, another smaller stone amphora, about 35 centimetres high, of the same general form, but with its salient features only just roughed out of the limestone block. Here, as in the other case, the catastrophe came suddenly—this vase was left unfinished as the others were left unfilled. Both the large amphora and the vases of the Throne Room evidence in their style the most perfect development of Mycenaean decorative art. From the correspondence of the crystal, ivory and porcelain remains, in the latter case scattered beside the vases, with those of the Fourth Shaft Grave at Mycenae, we know that that artistic bloom was cut short here about the time when the unknown King of the mainland city was laid to his rest.

The discovery of a sculptor's workroom in which highly artistic stone vases were actually in the course of execution, is only one of many indications that companies of skilled craftsmen and artists lived and worked within the Palace walls. The fresco paintings were naturally executed on the spot, and more than one deposit of colours shows that the materials were also kept in the building. The Lapidary's Workshop on the Southern Terrace shows that many small objects of stone and bone were manufactured on the site, and the finding of one or two unfinished

lentoid beads of steatite makes it probable that the art of gem engraving was also practised on the spot. The amount of clay documents shows that scribes must have been largely employed, and instruction in the art of writing was doubtless also given in the Palace chambers. One, to be presently described below, is in fact arranged like a school-room. Children were taught within the walls, and apprentices instructed in the arts and mysteries of their craft. The abundance of "rustic" pottery has already been referred to as an indication that colonies of slaves or artisans of humble condition were domiciled inside the building. The Palace of Knossos, like the great Indian Palaces at the present day, was a town in itself.

#### § 30.—THE EASTERN TERRACE WALL.

North of the area containing the spiral fresco and high reliefs, near an angle of the Eastern Terrace Wall, two more column drums of dark steatite were found, about 30 centimetres below the upper floor-level. Here, too, about 4 metres down, was a large deposit of vases belonging to the earliest Palace period. They represent the transition from the pure Kamáres style, some of them showing brown decoration on a pale buff ground, while others present the white and powdery red bands on a dark ground which characterise the indigenous early metal age pottery of Crete. Near here are the remains of a well only partially excavated.

North of this point is a well-preserved section of what has already been described as the Eastern Terrace Wall, running north and south. It is composed almost exclusively of good limestone blocks,<sup>1</sup> and its only facing is on the eastern side, showing that it fulfilled the functions of a terrace wall. The walling begins about half a metre below the surface of the ground, and goes down to a projecting base or plinth about 30 centimetres high. The upper part of the wall preserved is not continuous, being broken by embrasures. Along the northernmost part where the upper structure has vanished, stone runnels or gutters are visible at intervals, crossing the upper surface of the base of the wall. It is probable that these gutters ran out originally between embrasures.

<sup>1</sup> A few gypsum blocks are to be found among them.

### § 31.—THE FRESCO OF THE FEMALE *TOREADORS* AND THE BOXER RELIEF.

South of the angle of the Eastern Terrace Wall, within which lay the deposit of early pottery, a solid piece of walling is preserved, consisting of five courses of well-cut limestone blocks, one of which, belonging to the fourth layer from the bottom, shows a square projecting gargoyle, devised, like later stone spouts of the kind, to protect the wall from the drip of a gutter. At this point a later Mycenaean chamber with rubble walls has been built up against the finer structure of the Terrace. It seems probable from the remarkable contents of this room that it was the basement of a more important chamber which once rose above the level of the Terrace Wall. A large number of fragments of good Mycenaean vases, including fine naturalistic designs of plants and marine objects, were found in this space from a considerable height above the floor level,<sup>1</sup> showing that they had belonged to an upper chamber. With them were abundant remains of wall paintings, some of a decorative character, including fine rosette ornaments, but the greater part belonging to a large composition exhibiting bull-grappling scenes.

Although the painted stucco was much broken up it was possible to put together parts of two galloping bulls, about a quarter (linear) of the natural size, and executed with extraordinary spirit. These noble animals are drawn to a relatively much larger scale than the human subjects with which they are associated, a feature also observable in some designs of the same *taurokathapsia* on Mycenaean gems. Over the back of one of these bulls a Mycenaean cow-boy is seen turning a somersault in most acrobatic guise.

But the most interesting feature in this wall painting is the appearance, beside the male performers in this dangerous sport, of female *toreadors*, distinguished by their white skin, the more varied hues of their costume, the blue and red diadems round their brows, and their somewhat curlier *coiffures*, but otherwise attired in precisely the same way as the "cow-boys," with a loin-cloth and very narrow metallic girdle and striped socks and slippers. One of these Mycenaean "cow-girls" is seen between the horns of a charging bull, which the acrobatic male figure has

<sup>1</sup> About 1·79 metres down, or about 1·50 metres above the floor level.

apparently failed to seize hold of. The horns, however, pass under her armpits, and she grasps them higher up with her hands.

The episode is sensational in the highest degree, but we have here nothing of the mere catching of bulls, wild or otherwise, as seen on the Vaphio Cups. The graceful forms and elegant attire of these female performers would be quite out of place in rock-set glens or woodland glades. They belong to



FIG. 31.—RELIEF ON PART OF STEATITE PYXIS, SHOWING BOXER ( $\frac{3}{2}$ ).

the arena, and afford the clearest evidence that the lords of Mycenaean Knossos glutted their eyes with shows in which maidens as well as youths were trained to grapple with what was then regarded as the king of animals. The sports of the amphitheatre, which have never lost their hold on the Mediterranean world, may thus in Crete at least be traced back to prehistoric times. It may well be that, long before the days when enslaved

barbarians were "butchered to make a Roman holiday," captives, perhaps of gentle blood, shared the same fate within sight of the "House of Minos," and that the legends of Athenian prisoners devoured by the Minotaur preserve a real tradition of these cruel sports.

In the same chamber with these painted stucco fragments was also found part of a dark steatite pyxis—analogous to one found on the site of Knossos in 1894—with a relief showing an athletic contest of another kind (Fig. 31).

It is apparently a part of a boxing match. A youth with clenched fists stands with his left arm extended as if in the act of warding off a blow, while his right arm is either drawn back to give greater force to a blow or momentarily rests on his hips.<sup>1</sup> The latter interpretation of the gesture is permissible, if in the bent knee of a prostrate figure before the pugilist we may recognise an adversary whom he has just knocked down. The figure has somewhat suffered, and is contracted by the usual metal band into a disproportionately small waist, but the limbs, notably the left leg, show beautiful modelling, in this case free from muscular exaggeration.

### § 32.—THE "SCHOOL-ROOM" AND ADJOINING CHAMBERS.

Immediately beyond the rubble construction which forms the south wall of the room containing the bull frescoes are what appear to be the lower courses of an older wall of solid masonry, running at right angles from the Eastern Terrace Wall. It is possible that this marks part of the course of an original outer wall, enclosing a small quarter of the Palace that lay between it and the inner wall which here represents the continuation of the Eastern Terrace line.

Several small rooms are enclosed within this area, the most interesting being that which occupies its north-west corner. Along the south wall of this room ran a low stone bench, at the west end of which stood a square pillar coated with stucco, the upper surface of which was hollowed into a bowl-like cavity. At the other end of the bench was another lower pillar of rough stone, perhaps originally plastered over, with a similar cavity—the one pillar being of a height to be used by a man, the other by a child. Opposite this bench and pillars, against the north wall, was another similar stone bench, and the masonry rising behind it at a somewhat higher level

<sup>1</sup> The attitude closely resembles that of the boxers—there armed with *halteres*—on the bronze *situlas* of Waatsch and Matrai.

Plate II.

VALLEY OF ANCIENT KAIRS OF WEST MAGAZINES.



NORTH ENTRANCE. GREAT BASTION OF NORTH ENTRANCE. SECTION OF NORTH WALL: MAINLY OF SMALL STONES. NORTH WEST ANGLE. AT FIRST NORTH WEST ANGLE.  
THE PAVED AREA: OUTSIDE THE WALLS.

Plate II.



gave the appearance of a second. This, however, according to the explanation adopted above, should probably be regarded as part of an early outer wall of solid masonry. There seemed moreover to be remains of a doorway through this in the north-east corner of the room.

Along the side walls of the room are two more stone benches, which have a distinct inward slope as they recede from the south wall, an arrangement which inevitably recalls that of a modern class-room. The name of "School-Room" has therefore been provisionally given to this chamber as a distinctive title. May we, perhaps, imagine that the higher and lower stucco bowls were used, by master and pupils respectively, for keeping moist the clay lumps, out of which were moulded the tablets that serve as a vehicle for the linear script, and that the art of writing was here imparted to the Palace youth? That no written documents here came to light does not greatly weigh against this possibility, since hardly any minor relics were found within the walls of this room. Near the floor level, at the north-east corner, however, a very beautiful ornament of *kyanos* or blue glass paste was unearthed, in the shape of a Mycenaean shield with engraved scrolls on its outer surface. It showed a perforated handle on its under side. The floor, of gypsum cement, lay at a depth of from three to two metres below the surface, according to the slope.

At the south-west corner of the room were the jambs of a doorway leading to an elongated chamber which seems to have been used as a store-room. At the end and along the side walls were a number of "rustic" vases of the usual character, some piled on one another. Among these was an amphora of pyriform shape, with an oval mouth resembling in form that from the Kasella given in Fig. 14,<sup>1</sup> but with a plain unpainted surface, tripods and two-handled jars, shallow bowls, and cups with very high looped handles, these latter of a light paste. On a paved floor level, immediately east of the "School-Room," four jars, similar in form to some of those in the inner Magazine, stood in a row, and two of these were distinguished by showing a white band on a reddish ground, another was of the same ground colour, without the band, and the fourth of plain clay. Over one was also a plain clay bowl of fine paste, like those in the neighbouring store-room. We see here represented more than one stage in the transition from the pure "Kamáres" to the "rustic" indigenous style of the Palace, which survived in it to the great days of Mycenae. In this case a piece of

<sup>1</sup> See p. 47 above.

Mycenaean painted pottery of good period lay in the earth deposit a little above the jars.

Bordering the "School-Room" on the West was a small room representing the lower storey of that with the stone amphoras. It opened into a longer chamber from which a kind of vestibule led to what may perhaps be described as a small hall, presenting some interesting constructive features. In the walls were visible at intervals square upright grooves, which had formed the sockets of thick upright posts, the carbonised remains of which were visible within them in considerable masses. Upon the well-paved floor was a large deposit of lime, perhaps due to the calcination of gypsum slabs in the upper storey, under the great heat of the conflagration.

At the west end of this chamber, which may be called "The Room of the Wooden Posts," was a doorway 1·50 metres wide, flanked by a large stone pillar, or rather base, immediately under the great block of the upper floor level near which the relief frescoes were found, and which, from the fact that the upper surface slightly protruded above the surface of the earth, had always been somewhat of a landmark in this part of the site. This upper block rests on a flat slab which here represented the upper floor level 3·10 metres above the pavement below. Between these upper blocks and the base a strong supporting member must originally have intervened, perhaps in the shape of a square wooden pillar. The remarkable feature of the case is that the upper blocks had remained in place, owing to the accumulation of débris below, though the supporting pillar had itself decayed. We shall find many striking parallels to this phenomenon in the large halls beyond.

Between the base and original pillar that flanked the doorway below, and the north wall of the Room of the Wooden Posts, was a well-built balustrade, leaving an open space above it. This open space faced the doorway on the opposite eastern side of the room, and was no doubt devised to give light to the small finely-paved lobby to which the doorway beside the pillar gave access. This lobby formed the means of approach to another doorway at its southern end—its jamb and threshold exceptionally well preserved—leading into the Lower East-West Corridor, to be described below, and thus affording access to the great eastern halls of the Palace.

## § 33.—THE EAST-WEST CORRIDOR.

Adjoining the western border of the region described in the preceding section and on the same ground-floor level, is the opening of a passage-way, about 1·80 metres wide, running almost due east and west. About six metres from the point where the walls of this corridor are first visible, the passage-way mounts by means of a flight of stone steps. Ten of these are preserved in an unbroken series, after which there is a small gap succeeded by three more steps, the first, however, broken. The original flight consisted of fifteen steps, of which two and a portion of a third are now wanting. The cause of this break is due to the fact that whereas up to the tenth the steps rest on a solid foundation, at this point they reach the beginning of the lower East-West Corridor already referred to, into which the door from the lobby with the balustrade here opens. The roof of this end of the lower Corridor had collapsed, destroying the steps above it at this point.

Beyond this point, however, the floor of the upper Corridor has remained intact for some distance, running, as was afterwards made clear, above the lower gangway, the floor of which is about 4 metres below it.

Beyond the flight of steps the upper passage, to which the name of "East-West Corridor" *par excellence* may be given, passes on the right the doorway flanked by two massive blocks, already noticed as the southern entrance of the area containing the high reliefs and spiral fresco. Continuing east it slightly narrows into what appears to be a door opening, and follows the balustrade of the "Hall of the Colonnades," to be described below, to the important crossing point where the upper and lower staircase of this Hall and the Corridor of the Bays meet on a common landing.

The total length of the East-West Corridor is thus about 40 metres, representing the width of this section of the Palace, and it is a noteworthy fact that this distance almost exactly corresponds with that of the opposite quarter of the Palace as taken from the entrance of the Room of the Column Bases to the borders of the Western Court. This correspondence in the width of the two opposite sections of the Palace at this point gains significance from the fact that the East-West Corridor exactly centres on the line of the Pillar Rooms and their lateral passage on the other side, which with their ante-chamber, the Room of the Column Bases, forms a kind of central division, to that wing of the Palace. The East-West

Corridor, in the same way, exactly divides the line of buildings on the eastern side of the Central Court, so that the two lines between them form a kind of *Decumanus* to the building. The *Cardo*, to continue the Roman simile, is supplied by the Northern Entrance-way at that end of the Central Court, and by the traces at the opposite end of the Court of a Southern Entrance passage.<sup>1</sup> Here, too, the principal or "Praetorian" front was to the East.

The whole result of the most recent excavations has been more and more to bring out the fact that, vast as is the area it embraces, the Palace of Knossos was originally devised on a single comprehensive plan. The ground scheme of a square building, with a central court approached at right angles by four main avenues, dividing the surrounding buildings into four quarters, is a simple conception which, as we now know, long before the days of the later Roman *Castra*, was carried out in the *Terremare* of Northern Italy. It was not otherwise that at a much later date Hippodamos laid out the plan of Thurii, and Frederic "Stupor Mundi" and our first Edward resorted to similar schemes for their civic foundations from Terranova to Winchelsea. But while these other plans dealt with separate units, in their aggregate composing a township, and easy of distribution, the Minoan architect may claim the credit of adapting the same root idea to an organic whole, and fitting it in to a complicated arrangement of halls, chambers, galleries, and magazines, forming parts of a single building.

#### § 34.—EXTENSIVE DEPOSITS OF INSCRIBED TABLETS AND SEAL IMPRESSIONS IN THE EAST-WEST CORRIDOR.

The whole upper course of the East-West Corridor, from the top of the steps onwards, was the scene of repeated finds of inscribed clay tablets and seal impressions. Others, again, were found within the doorway leading to the area of the High Reliefs and the Spiral Fresco, and others, again, had found their way over the edge of the neighbouring Hall of the Colonnades, into the corridor below, and even to the lower recesses of the adjoining staircase. It was obvious, however, from the character of the inscriptions and recurring *formulae*, as well as from the continuous though extended area of their diffusion, that they belonged to the same deposit, or, more

<sup>1</sup> See above p. 14. In the plan, which only shows here the basement spaces, an idea of the Southern Entrance Passage can hardly be given.

probably, series of deposits. The scattering that had occurred seemed in this, as in some other cases, to be due to their having reached the position in which they were found from an upper floor. These tablets had suffered in an exceptional degree from the effects of fire, and in some cases had been reduced to a condition resembling blackened pumicestone. The meaning of this, however, became clear when it was found that they originally lay in what seems to have been a third storey, contiguous to the great Palace Halls, where the final conflagration has left other signs of having been more violent than elsewhere. The tablets do not present any pictorial figures. They relate to accounts of one kind or another, on the whole to higher amounts than those of any other deposit yet brought to light—the figures in one case being over 19,000. The total sums at the end of the inscriptions are often preceded by the throne-sign.

The seal-impressions were most numerous on the staircase landing at the west end of the corridor. They show examples of the finest Mycenaean style of engraving, impressions from the same intaglio being often repeated. The subjects include,—besides the usual bulls, lions, *agrimis*, rams, moufflons, dogs seizing their quarry, flying birds and flying fish—a certain number of specially interesting types. It was here that several impressions were found from the actual signet ring delineating the seated Goddess and her attendants, the counterfeit matrix of which has been already described.<sup>1</sup> Two designs belonged to the same religious cycle as that showing the Goddess on her sacred peak with the lion supporters. On one of these, a flounced female figure, evidently the same divinity, lays her hands on the necks of two lions who stand back to back with their heads turned towards her. Two other varieties show a male figure between a pair of confronted lions, stretching his arms over their heads in an attitude similar to the design on a gem found near the site of Kydonia.<sup>2</sup> In another impression a lion stands before a probably “baetylic” column, and a very fine seal shows a moufflon standing before a fluted column with a Mycenaean shield in the field. A sacred tree of papyrus-like appearance rises between two symmetrically grouped wild goats, and an ox is seen laid out on a sacrificial table, as on a gem from a tomb of the Lower Town of Mycenae.<sup>3</sup> Griffins occurred both single and confronted. Two scenes refer to the *Taurokata-*

<sup>1</sup> See above p. 19.

<sup>2</sup> J.H.S. 1900, p. 163, Fig. 43.

<sup>3</sup> 'Εφ. 'Αρχ. 1888, Pl. x. 36. Placed wrong way up on the plate. Compare the gem in the Berlin collection, Furtwängler, *Beschreibung*, &c. No. 22.

*thapsia*—in the first a man, who has apparently missed his grasp, is seen above a magnificent galloping bull, in the second he lies prostrate below the lower outline of another. A curious device consists of a Mycenacan shield in an upper compartment, while below is the upper part of a naturalistic design of a Triton shell. A very exceptional type, of which several examples came to light, also showed the field divided into two compartments, in the upper and lower of which are four crouching figures, apparently of men with their forearms slightly bent upwards. This device derives a special interest from the fact that seal impressions, with a type so similar that it is difficult to say whether or not they were taken from the same gem, were found by Mr. Hogarth amongst the hoard of clay sealings brought to light on the ancient site explored by him at Zakro in the extreme east of Crete—a fact which indicates a direct connexion between that early settlement and Knossos.

### § 35.—THE QUADRUPLE STAIRCASE.

The meeting-point of the East-West Corridor and that of the Bays had been originally reached by excavation from the north along the latter line, and the adjoining landing, on which so many seal impressions were found, had been naturally regarded at first as a small bay of the same Corridor. A rubble block of masonry beyond had been taken for a broader buttress of the same kind as the others that jut out along the terrace line of the Central Court, and a fifth bay seemed to have been reached beyond it.

It was at this point that the development of the excavation took an altogether dramatic turn. Hitherto, along the line of approach—in the area, that is, between the Eastern Terrace line and that of the Central Court—the ground-floor of the rooms and galleries had lain according to the slope from at most  $2\frac{1}{2}$  metres to half a metre below the surface of the ground. But, as the excavation of what had been taken to be a fifth bay of the Corridor proceeded, the earth deposit was found to go down and down till a paved floor level was reached 5 metres below the surface, while a little to the east of this another cement floor was subsequently found lying 6·80 metres down, or about 8 metres below the level of the pavement of the Central Court. Steps going up and down began to appear, and it soon became clear that what had been taken to be a fourth bay of the

Corridor was the middle landing of a quadruple flight of stone stairs, while the supposed fifth bay was the landing below. The Corridor of the Bays, itself on a ground level, was seen to have emerged on the galleries and stairs of an upper storey, while the walls bounding the East-West Corridor on the north were found to represent a line along which the whole transverse section of the hill had here been cut out to a lower ground level corresponding with that beneath the Eastern Terrace. The base of the terrace wall of the Central Court, which had run from 2 to  $2\frac{1}{2}$  metres below the surface, now went down nearly to 7,<sup>1</sup> originally 8, metres, or over 25 feet.

The western section of the East-West Corridor proved to be at the same time the upper gallery of a square columnar hall, and was flanked on the side overlooking the hall by a balustrade, a coping slab of which showed the raised socket of an original wooden column. The point where the East-West Corridor and that of the Bays converge formed, as already noticed, at the same time part of the middle landing of a staircase. From this point a flight of stone steps led up along the west line of the above mentioned hall, flanked by a similar balustrade rising in three steps, each gradation terminating in a socketed slab<sup>2</sup> for a wooden column.

At the upper termination of this flight of stairs part of a large stone slab representing another landing was still in position. The middle wall between the inner and outer staircases showed a window opening to give light to the lower flight. This wall was of rubble construction, but at its upper end by the landing was a huge limestone block, the surface of which, facing the upper landing and round the corner beyond, was cut out in such a way as to leave a graduated projection. The ends of three steps were outlined over this projection, attesting the former existence of a higher flight of stairs ascending to the level of the Central Court over what afterwards proved to be the second flight from the bottom. We have here the remains of three distinct storeys, above which was probably a fourth.

Descending the stairs to the landing above which the seal impressions were found and which was much choked by large fallen blocks, another flight of twelve steps was opened out, the west wall of which was built up against the Neolithic clay deposit that forms the base of the Central Court.

<sup>1</sup> On the inner line of the stairs the depth, as stated above, was only 5 metres, but further south the depth was the same as that of the adjoining Hall of the Colonnades, namely 6'80 metres, representing an original depth below the level of the Central Court of about 8 metres.

<sup>2</sup> Their sockets, like that already described, had a raised ring and their inner diameter was about '58 centimetres.

This flight led to a lower landing divided into two levels, the slab immediately at the bottom of the stairs leading to another at the top of the lowest flight by a triple step.

At this point is a large limestone base, immediately under the block that flanks the upper landing. Above this base, after an interval of 13 centimetres, was a flat slab with a raised socket like those of the balustrade above, made for the insertion of a wooden column which had formed the support of the large block above. The interval between the socket and the upper block was 1.60 in height. It had become filled with a tough red earth which had kept the upper block in position. In the earth immediately under the west side of this block were seen the charred ends of a row of square cross-beams which had intervened between it and the capital of the column.

It was at first thought that a direct access existed from this lowermost landing to the hall on its eastern side. But it was found that the floor of the hall lay at a considerably lower level, and a fourth flight of twelve stairs was gradually brought to light descending north under the second flight, with a headway of about 2.70 metres in height. The excavation of this part was of extraordinary difficulty, owing to the constant danger of bringing down the stairway above. It was altogether miners' work, necessitating a constant succession of wooden arches. Two of our workmen however had worked in the Laurion mines, and after eight days' slow progress, a passage down the steps was finally cleared along the western wall of the staircase. The outer wall was found to end below in another limestone base, with a socketed slab above it for a wooden column, like that of the landing above.

The stairs emerged below on a well-paved portico, with fine gypsum slabs on its inner walls, opening on the hall already referred to, and which, from its tiers of pillars above and below, has received the name of the "Hall of the Colonnades." The quadruple flight of stairs, leading down to this from the Central Court and the corridors of the north-east Palace region, seems originally to have consisted of fifty-two stone steps, of which thirty-eight, and the indications of five more, are preserved. The steps were about 12 centimetres high and 45 deep, those of the under flights 1.80 metres wide, those of the outer about 1.25 metres. The window opening to give light to the third flight from the top has been already noted, and there seems to have been another opening of the same kind on the lowest flight

from the Hall of the Colonnades (see Fig. 32). It is possible that a stepped balustrade with columns also ran up alongside of the uppermost stair. A burnt shaft of a column of cypress wood, which had probably fallen from a neighbouring part of the balustrade, was found in a small chamber just beyond the upper landing. It had the appearance of being fluted, but this may have been due to the effects of the burning.

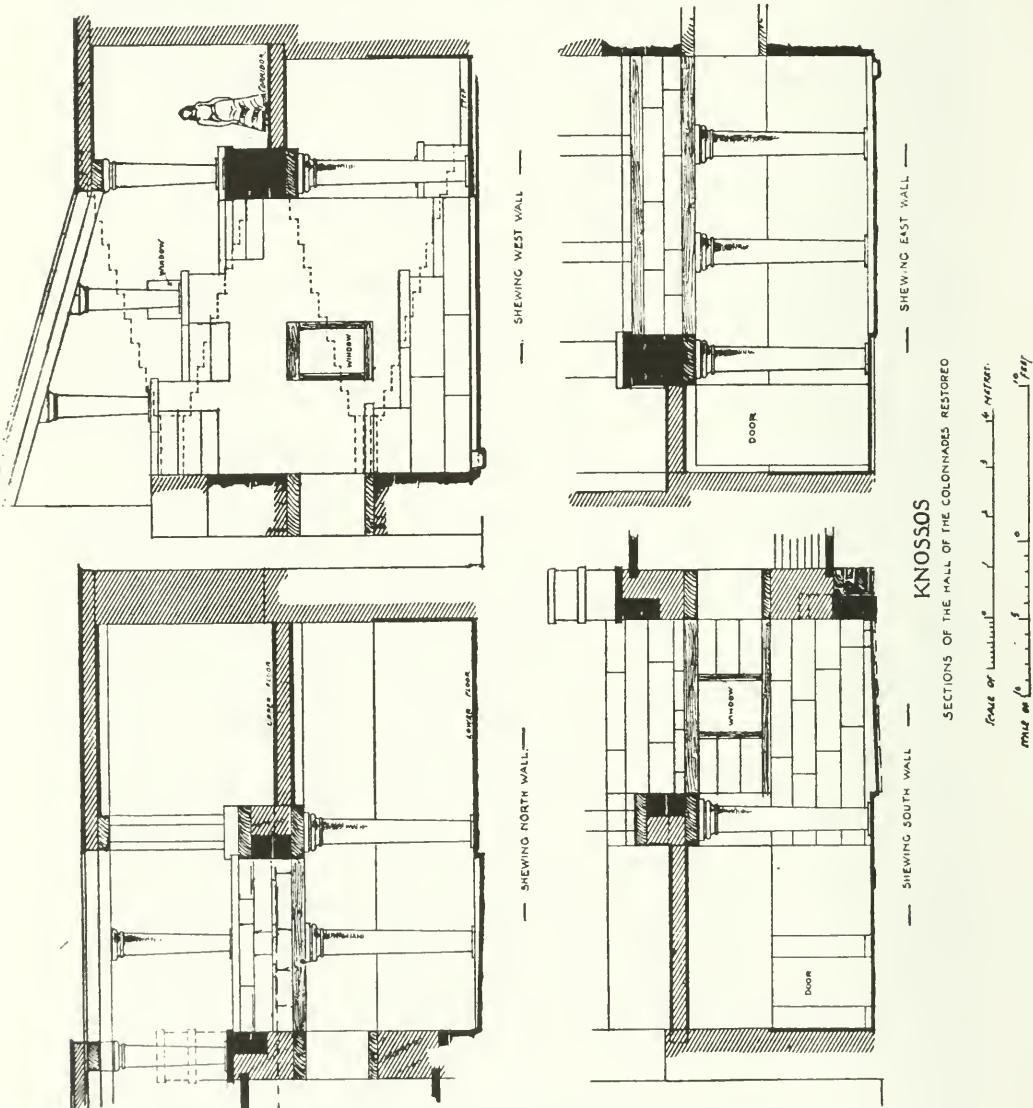
#### § 36.—THE HALL OF THE COLONNADES.

The descending stairs, and the parapets with sockets for wooden columns on the upper margin of the "Hall of the Colonnades," at first gave the impression that we had here to deal with a large bath, like those already discovered. But though, as already pointed out,<sup>1</sup> the analogy to a certain extent holds good, the doorways and circular bases, subsequently found on the floor level, showed that the structure with which the above features were here connected was in fact a Columnar Hall.

The quadruple staircase described above dominated the western side of this Hall, while the portico, into which the lower flight of stairs led, formed the northern section of the Hall itself. This portico acted as the support of the parapeted gallery already mentioned as representing the continuation of the East-West Corridor, and might itself be regarded as the continuation of the passage-way referred to as "the Lower East-West Corridor," running below the other. It led into the lower Corridor proper by a doorway at its eastern end, with exceptionally well preserved wooden posts and lintel. The Portico had a gypsum paving and a dado consisting of thin slabs of the same material along its inner walls. It was filled with a fine earthy deposit into which some inscribed tablets belonging to the same deposit as those of the East-West Corridor had made their way through a breakage of the floor, and several seal impressions derived from the same source were found near the doorway. Two circular bases, about 60 centimetres in diameter, on the outer line of the Portico, showed the position of the wooden columns that had originally supported the stone breast-work—itself about 90 centimetres in height—of the Upper Corridor. The columns must have been about 3·50 metres high, and in spite of the fact of their disappearance, the earthy deposit and débris which had made its way into the intervening space had been sufficient to keep

<sup>1</sup> See above p. 62.

the balustrade above in position. Unfortunately, the wooden framework, which had been first inserted to support this breastwork while the débris



was being cleared from below it, proved unequal to a sudden lateral strain caused by a slip of exceptionally loose earth, and a large part of it fell during the night of June 11. Owing to the presence of a heap of soft

earth below, however, the blocks did not suffer serious injury, and it was found possible to replace them in position with a stronger support.

The second column base of the portico described above forms at the same time the first of a series of similar bases<sup>1</sup> on a stylobate running across the Hall from north to south and dividing it into two equal spaces. The eastern half of the hall, within the column bases, had a good gypsum pavement and the lower part of the enclosing walls was covered with fine slabs of the same material, as in the case of the "portico." The western half, on the other hand, between the stylobate and the wall enclosing the staircase, had only a cement flooring, and was obviously, in part at least, hypaethral.

The three columns which originally stood on this central line had acted as supports of the front line of an upper chamber above the paved space below, the floor of which must have been on a level with that of the Upper Corridor, on which it undoubtedly opened. Curving slightly down from the borders of the gallery above the lower portico, there were visible a series of the round carbonised ends of the beams that had supported the floor of the upper chamber. Above this again were the remains of a stone breast-work, about the same height as that of the adjoining gallery, in a somewhat ruinous condition, which had doubtless originally supported some kind of wooden pillars, the openings between these affording light to the upper chamber, and at the same time a view from it into the court below. This ruinous parapet had eventually to be removed pending its replacement on a wooden scaffolding.

The comparative height of this part of the building—by the staircase, certainly three storeys—the spacious hall and the numerous wooden columns seem to have greatly intensified the effects of the conflagration. The painted stucco, which must originally have covered a large part of the walls, together with a good deal of the gypsum and limestone materials of the upper part of the building, had been reduced to a calcined mass, which greatly increased the difficulty of excavation in the upper part of the deposit within the "Hall of the Colonnades." From about  $4\frac{1}{2}$  metres above the lower floor level, for a thickness of over 3 metres, a calcined stratum of pale red earth almost as hard as rock had to be cut through with the pick, and, though the lowest layer was somewhat softer, large

<sup>1</sup> The diameter of the central column base was 60 centimetres, that to the south 63 centimetres.

heaps of lime lay in the south-east corner of the lower room which had to be literally cut away from the pavement. Above the calcined stratum was a deposit of charred rafters.

In spite of the destructive results of the conflagration, a fortunate circumstance seems to have preserved some record of the decoration of the upper room of the hall. Into a small space immediately to the south of it, which, from its secluded position and exiguous dimensions, must have been comparatively protected from the force of the fire, there had fallen many pieces of painted stucco belonging to the decoration of a larger chamber, which were certainly derived from this area. Pieces of fresco were here found of a fine architectural character, one apparently representing a part of a façade, in which was a frieze with half rosettes of a character similar to that found near the north-west corner of the Palace.<sup>1</sup> Fragments of a bull in painted stucco relief were also found here.

In the same small compartment—little more than a pit in itself—about 4 metres down, together with the fragment of fresco and stucco relief, occurred a curious decorative slab of porphyry-like limestone, the border of which was cut out into a kind of grotesque rockwork outline—suggestive of Japanese or Chinese designs. There was also found here a bronze knife and a deposit of seal impressions, among which eighteen pieces repeated the same seal type containing a pair of the strange Mycenaean daemons.

Whether or not these seals had also originally found a place in the upper chamber of the Hall of the Colonnades, a very remarkable find made about on a level with its stone breastwork, near the southern wall, seems to show that some important documents had been deposited there. This was a clay tablet measuring 267 by 155 millimetres—the largest yet found—and containing twenty-four lines of inscription. The inscription showed the man-sign constantly repeated after groups of linear characters, and perhaps refers to male slaves or captives, giving the names of their owners. It is divided into three lists, prefaced by varying formulas, and with the total numbers of each list added up at the end. With this tablet were found some smaller fragments of inscriptions.

In the south wall of the lower chamber within the colonnade, at the south-east corner, was another well-preserved doorway,<sup>2</sup> opening into a

<sup>1</sup> See above p. 53.

<sup>2</sup> Both this and the doorway at the north-east corner were 1·40 metres wide.

passage the connexions of which are not yet ascertained. The adjoining part of the south wall of the chamber, like the other interior walls, here was of rubble masonry lined with gypsum slabs. Outside the line of the stylobate, however, the character of the south wall suddenly changed. From this point onwards, as befitting a more exposed structure, it was formed of limestone blocks of good masonry, interrupted by two horizontal cement-lined grooves, which had been originally filled by wooden beams, and which in part of their length had formed the upper and lower frame-work of a window-like opening. Owing to this insertion of more perishable material the upper part of the wall had somewhat subsided towards its eastern end, though the relative position of the blocks was not affected. Near the south-west corner of the room twelve courses of masonry were preserved, in addition to the interspaces formerly filled by these cross-beams. This south wall attained a height of 5.40 metres, or about 18 feet. Upon a large number of its limestone blocks was cut a sign perhaps representing a kind of *sistrum*.

The adjoining west wall which encloses the staircase is of a more complicated structure. Above, immediately under the balustrade, are good limestone blocks, and below, again, is fine masonry resting on the ground-level, and rising in steps, following those of the breastwork of the staircase above. The intervening space, however, between these two bands of good material is now largely filled with clay and rubble, partly of a derivative nature. It appears that the upper and lower masonry must have been connected by wooden piers, and that there was a window between these giving light to the lowest flight of stairs.

The oblong space in front of this wall, and outside the line of the colonnades, was coated, as already noted, with a cement, largely consisting of pounded gypsum, in place of the stone paving which was laid down in the covered parts of the hall. A further indication that in part at least this outer area was exposed to the weather, is supplied by the fact that the floor slightly slopes towards a drain hole in the south-west corner. The upper course of this drain<sup>1</sup> could be traced through an adjoining chamber for some metres to the south, while eastwards its course can be followed along the whole southern wall of the Hall of the Colonnades, and across the neighbouring angle of the Hall of the Double-Axes beyond.

We have here then a Columnar Hall (see Fig. 32), about 8 metres

<sup>1</sup> The drain was 9 centimetres deep and 19 wide.

square, consisting of a covered space,—chamber and portico,—connected with another portico and chamber above them by a triple staircase, and the whole bordering an open space 5·40 metres long by 3·30 broad, which served as a well for lighting both storeys. It is possible that this open space may have been partly covered by a lantern above; but the drain and sloping floor, and the change of materials for pavement and walls, show that it was largely exposed to the weather. Nothing indeed in this whole structure is more remarkable than the careful adaptation of material to conditions. In the sheltered spaces were good paving, gypsum dados, and painted stucco, (of which fragments only had here been saved from the conflagration), covering inner walls of merely rubble fabric. In the exposed parts cement takes the place of the fine but perishable gypsum slabs for the flooring, and the walls change to well-cut masonry or solid wood-work. The whole structure of this hall, with its tiers of colonnades rising one above the other, and, on the west side, following in harmonious gradations the ascent of the double flight of stairs, must in some respects have anticipated the effect of the entrance court of an Italian Renaissance Palace.

#### § 37.—THE MEGARON OF THE DOUBLE-AXES.

To those descending east by the quadruple staircase, either from the Central Court or from the quarter of the Palace with which the Corridor of the Bays communicates, the Hall of the Colonnades would have formed a kind of fore-hall to a larger Megaron lying immediately to the east of it.

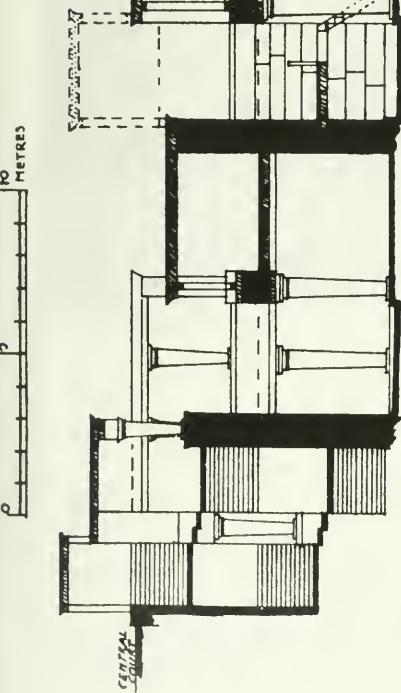
The communication between the two halls, however, was not direct, but by means of a short section of the lower East-West Corridor entered as already described through a well-preserved doorway in the north-east corner of the Hall of the Colonnades. About four and a half metres beyond this another doorway opens in the right wall of this lower Corridor giving access to the large Megaron that bounds its southern wall.

The excavation of this area to a great extent repeated the characteristics of that inside the Hall of the Colonnades. Here too were everywhere the signs of an exceptionally violent conflagration. Here too the burnt rafters of the upper layers gave place to a stratum of calcined material of a pale brick-red colour and almost as hard as the native limestone. On the floor level, moreover, below this in places, lay great masses of lime.

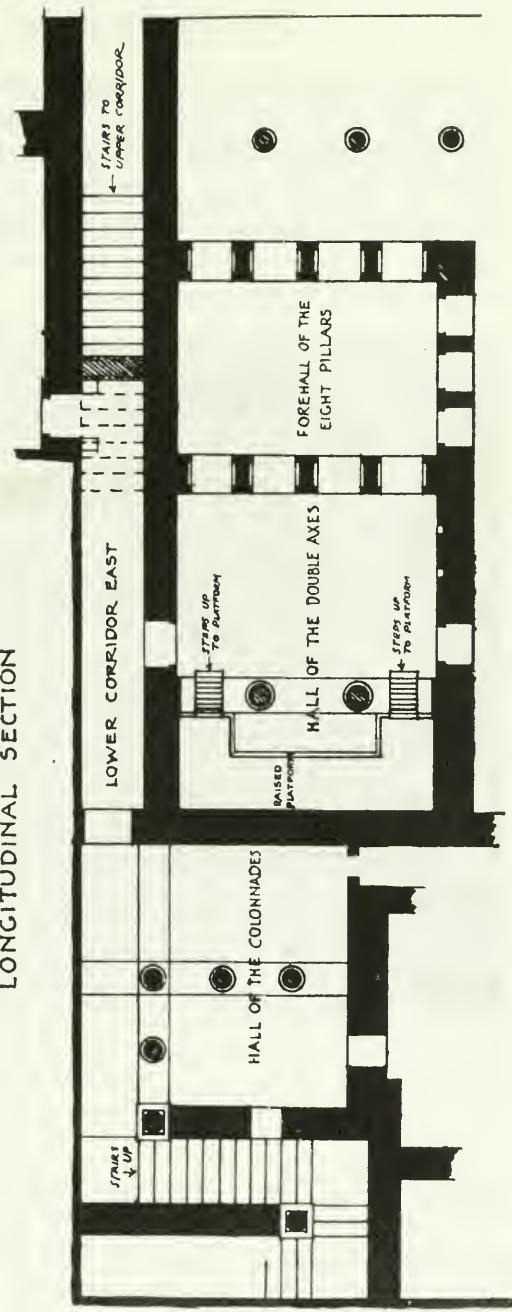
The structure itself in its material and arrangement recalled many

# KNOSSOS

HALLS ON EAST SLOPE · RESTORED



## LONGITUDINAL SECTION



## PLAN OF LOWER FLOOR

leading features of that of the neighbouring hall. Here too the western end, which in this case also seems to have been comparatively exposed to the weather, was enclosed with walls of good masonry, but presented a cement-laid floor in place of the stone flags of the interior spaces. Here too, again, the covered part of the building, though well-paved, was surrounded by walls which, behind their original coating of gypsum slabs and stucco, were of merely rubble construction.

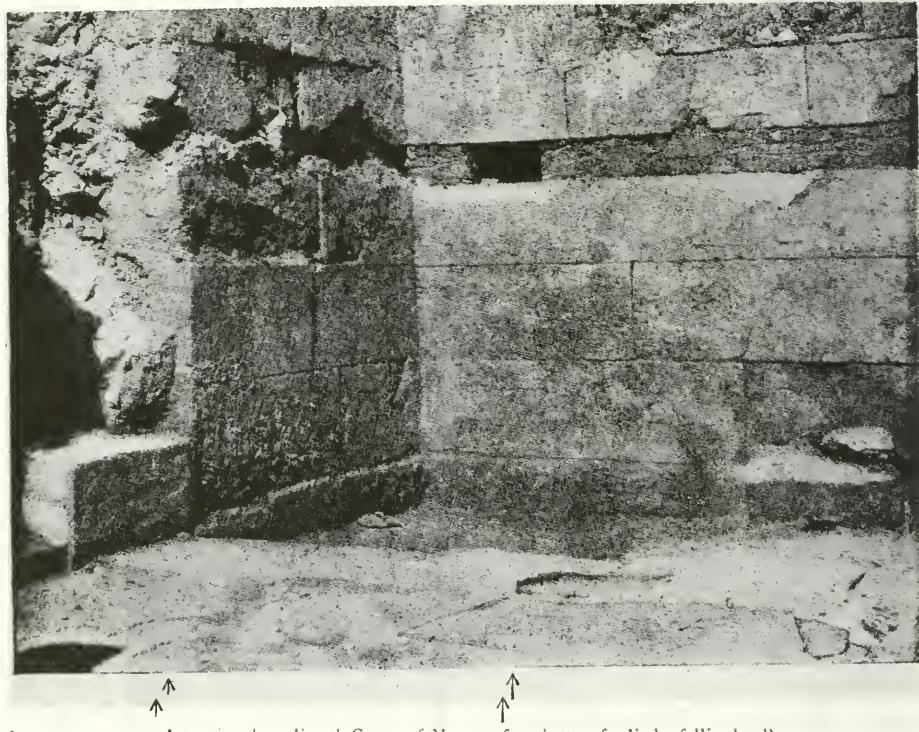
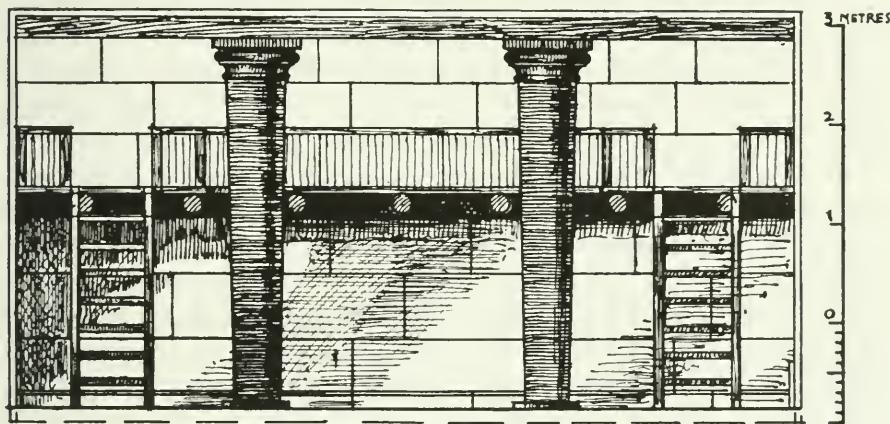


FIG. 34.—SOUTH-WEST CORNER OF MEGARON OF DOUBLE-AXES.

The western end of this hall was formed by a carefully constructed wall of fine limestone blocks, 8 metres wide, with two wings 4'20 metres long projecting east. The blocks here were larger than those of the other hall, and were incised with the double-axe sign which constantly ~~recurred~~ at the most important parts of the building, but is most in evidence in this great hall, called on that account "The Megaron of the Double-Axes."

Eight courses of this wall were preserved, rising to a height of 4·50 metres, or a little over 13 feet. Its lowest course projects so as to form a plinth, and the courses of masonry are interrupted in the middle by a horizontal cavity,<sup>1</sup> partly filled by coarse lime and terracotta cement, in which were visible the round hollow sockets of beams whose ends had thus been cantilevered into the wall. There were seven of these sockets along the western wall and two on each of the wings, where the same horizontal cavity continued. The only possible object of these projecting beams



KNOSSOS: HALL OF THE DOUBLE AXES  
CROSS SECTION LOOKING WEST. RESTORED

FIG. 35.—WEST END OF MEGARON OF DOUBLE-AXES RESTORED, SHOWING RAISED WOODEN PLATFORM AND STEPS.

must have been to support a raised wooden platform at the end of the hall, approached, we may suppose, by ladder steps at each end (see Fig. 34). It is possible that further wooden steps led from the platform to the *Thalamos* above the *Megaron*.

The drain already traced across the Hall of the Colonnades was found to pass under the western wall of this *Megaron* and to traverse its south-west corner.<sup>2</sup> No opening to it was visible here, however, as in the other case, and this circumstance, as well as the fact that a wooden platform was

<sup>1</sup> In order to save the upper part of the wall from the danger of subsiding, the greater part of this cavity had to be filled in.

<sup>2</sup> The dimensions of the drain were here larger, 25 centimetres deep by 45 wide, an indication that some additional surface water was supposed to reach it.

constructed at this end of the Megaron, tends to show that it was not exposed to the weather to the same extent as the open area of the Hall of the Colonnades. It is probable therefore that here at any rate the lighting space at the west end of the Hall was partly protected by a lantern above.

The limit of the inner area of the Megaron of the Double-Axes was marked, as in the neighbouring hall, by a gypsum stylobate, beyond which the whole floor level was paved with fine gypsum slabs. On this stylobate, which terminates on either side in two massive cubical blocks, were two column-bases 65 centimetres in diameter, and above them a very interesting feature was brought out by careful excavation, namely, the remains of the two columns themselves in a carbonised condition. Both of these stood with their lower extremities pointing towards their respective column bases, the upper part of the drums sloping away slightly in a south-westerly direction. They were made of cypress wood, and in the case of the more northerly of the two, which was the better preserved, it was possible to make out a length of 2·60 metres, very nearly the full height of the shaft which would have been somewhat over 3 metres. A distinct taper downwards, according to the Mycenaean canon, was moreover perceptible, the diameter of the shaft near the lower extremity in its burnt condition being about 45 centimetres.

Immediately east of the stylobate were door openings in the side walls of the Megaron—that to the north leading, as already described, into the Lower East-West Corridor, that to the south to a finely built passage, the further exploration of which must be part of next season's work. The pavement of this section of the Megaron consisted of a central rectangle of flags of somewhat unequal sizes, surrounded by a border of very fine regular slabs. This arrangement recalled that of the Room of the Throne, and it is probable that in this case too the central area was originally distinguished by a coating of brilliant red cement. The paving of the succeeding section, or “Prodomos” of the Megaron, showed the same arrangement.

At a distance of 5·60 metres from the inner line of the stylobate were three oblong bases with double reveals, and against the walls on either side two half bases of the same kind, leaving four door-like openings across the hall, and about 1·30 metre wide. In the fore-hall, or “Prodomos,” in front of these, at a distance of 5·40 metres, were the same number of

similar bases, with half-bases answering to them on their flanks. On the southern side of it, moreover, were two more bases and half-bases, with reveals however only on the side towards the hall. It does not seem reasonable to suppose that this forehall had eleven doors, and the bases, at least, along the centre of the Megaron may be preferably regarded as having supported square pillars. The object of the succession of pillars seems to have been, while keeping as large as possible an open space for the Megaron below, to afford support for similar pillars on the floor above, which possibly in their turn gave support to the structure of a third storey. A line of similar bases was found directly above the first lower row, on a floor level about 3·50 metres higher than that of the Megaron below.<sup>1</sup> There had probably also existed a second row at this upper level, answering to the eastern line of bases in the lower Hall, but owing to the slope of the hill the surface was here denuded to a point below the upper floor level.

Beyond this eastern line of pillar-bases the north wall of the Megaron continues east for another 5·80 metres, thus forming the *anta* of a paved portico of which three column bases were brought to light. How far this portico continues to the south, and on what it opens beyond the face of the Megaron, are questions to be decided by future excavation. The portico was paved with the same fine gypsum slabs and seems to have had a series of square columns along its outer margin. Between the column bases here were found fragments of painted stucco with spiral and rosette designs. Inside the Megaron the intensity of the conflagration seems to have completely destroyed these decorative elements. On the floor-level near its west wall, however, were found several pieces of stone vessels including the upper part of a very fine vase of a mottled red and grey colour. The cutting of this vase, which belonged to the pointed class, was bolder than any of those found in the Room of the Stone Vases. It had a very pronounced ring round its neck and deep sharply edged fluting down the sides. It seems to belong to a somewhat more archaic class than the fluted vessels of the other deposit.

The "Megaron of the Double-Axes," of which a perspective sketch by Mr. Fyfe is given in Fig. 35, is by far the largest Hall as yet laid bare on the Palace site of Knossos. Its breadth—8 metres—cannot indeed

<sup>1</sup> All were preserved *in situ* except the half-base that must originally have stood by the south wall of the chamber.

compare with that of the Great Megaron discovered by the Italian Mission at Phaestos, which is no less than 13·70 metres broad. Its length on the other hand—reckoning from the outer edge of the Portico 24·40 metres, or nearly 51 feet—is 2·70 metres larger than the Phaestian Megaron as measured from the top of the entrance steps. The interior

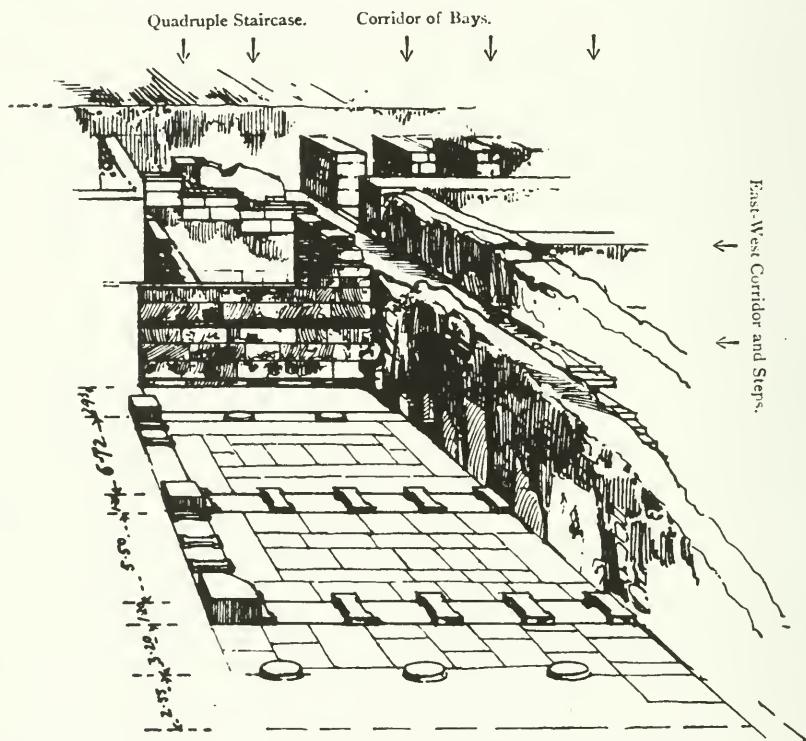


FIG. 36.—PERSPECTIVE SKETCH OF MEGARON OF DOUBLE-AXES (South Wall omitted) WITH HALL OF COLONNADES AND STAIRCASE BEYOND.

length of the inner hall with the columns,—about 10 metres,—is almost exactly the same as that at Phaestos. The great Hall which originally extended from the Corridor of the Bays to the Area of the Spiral Fresco and High Reliefs,<sup>1</sup> seems however to have been more extensive than either.

The upper floor seems to have consisted of a spacious room with pillars at intervals like those below, of which, as already noted, the bases of the

<sup>1</sup> See above p. 90.

western series remain. In the course of excavation these had to be temporarily removed but have been replaced as originally found, and at their proper level, by means of a wooden scaffolding. In the earth beneath these were embedded the carbonised remains of round beams about 40 centimetres in diameter running from east to west. A part of the rubble wall has been preserved between the eastern section of this upper chamber and the East-West Corridor, from which access had been obtained to it by means of a doorway over that leading from the Lower Corridor into the Megaron below. On this wall had been happily preserved a piece of the original painted stucco, exhibiting a design of palm-like trees, executed in a somewhat careless style and resembling one on the wall near the throne, beside which were single horn-like objects, which may have had a sacral significance. What remained of the fresco was only about 80 centimetres high, but the painted dado could be traced for about 3 metres.

Just within the eastern section of this upper chamber, near the pillar base by its northern wall, lay a large block of carbonised wood which may either have been part of a pillar or a natural trunk.

It is possible that the "Megaron of the Double-Axes" was originally approached up the eastern slope of the hill by a broad flight of steps analogous to those of Phaestos, but this point can only be decided by further investigation.

#### § 38.—DISCOVERY OF PARTS OF A STONE BULL, CARVED IN THE ROUND, AND OF BONE PLAQUES INSCRIBED WITH SIGNS AND NUMBERS.

The region south of the Quadruple Staircase and the two Halls is also as yet too imperfectly explored for adequate description, though features of considerable interest have already come to light in this region. Remains of two storeys seem to have been preserved throughout the greater part of this area. In an upper chamber near the terrace of the Central Court, a stone bench and parts of the floor slabs have been preserved in position above the fine masonry of a lower room.

Two very interesting discoveries have come to light in this area, inside what appears to be a large stone drain or "cloaca" analogous to that of the Northern Entrance. It was approached by a chimney-like stone shaft, the mouth of which, closed by a slab, was partly under the

door-jamb of an upper storey floor-level, that lay 1·60 metres beneath the surface. From this point the shaft descends another 5 metres to the junction of a northern and eastern course of the conduit, which was itself spacious enough for a man to make his way along it. In the eastern passage were found pieces of a large bull, carved in the round out of a dark schist-like stone, perhaps a kind of steatite, the pieces having numerous small dowel-holes at their back so that they could be riveted together. It would appear that this comparatively soft material, which naturally commended itself to the early sculptor, could only be obtained in small lumps, so that the statue of the bull in the round had to be built up in this way. At the date when the excavations closed for the season, only a few pieces belonging to the lower part of the bull's body had been got out.

The other discovery in the same subterranean passage does not yield in interest to this. Near the remains of the bull were found quantities of bone pieces, of fish-like outline, resembling the *vesicae piscis* let into the medallions of the gaming table. With these were bits of Mycenaean porcelain, apparently for inlaying, and some crystal plaques also belonging to a similar board. There were further found segments of bone rings of various breadths, resembling bracelets, and decorated with exterior mouldings. These had been originally covered with thin gold plate, parts of which were adhering.

The upper surface of the bone "fish" was relieved with fine parallel ridges and grooves, and on their under sides were engraved a series of signs accompanied by various scores in the shape of perpendicular lines, like those which on the clay tablets with the linear script indicate units. Similar signs and figures also appeared on the inside of the bone rings. One sign only appears on each "fish," but sometimes two together on the rings.

The amount of these remains will probably be greatly added to by the continued excavation of the stone conduit. Here it must be sufficient to mention that as yet some twenty different signs have come to light, linear in type but not answering to those of the ordinary linear script of the Palace. A most remarkable phenomenon, however, is observable in the forms of these signs. Out of twenty-one varieties, ten are practically identical both in shape and position with later Greek alphabetic forms, while four more are the same though in a different position. Thus we have: Δ, Λ, Η, Λ/, Ξ, Π, Ρ, Υ, +, and a form approaching the digamma,

as well as 3, 7, —, ←. Yet the Mycenaean date of these bone pieces is as well ascertained as anything found within the walls of the Palace. They are of similar type to pieces of the gaming table, and are associated with porcelain and crystal inlays answering in character to specimens found in the shaft-graves of Mycenae. They lay here beneath an untouched floor-level in a closed passage 6·60 metres, or over 21 feet, beneath the surface of the ground.

Each sign is associated on different pieces with various numbers; thus we have :

$$+ \text{II}, + \text{III}, + \text{III II}, + \text{III III}, + \text{III IIII}.$$

It must be observed with reference to these signs and ciphers that their appearance is analogous to that of the signs and dots that appear on the under side of the porcelain roundels and other plaques for inlaying, such as those found in the Throne Room.<sup>1</sup> The dots also appear among the numerical signs of the hieroglyphic tablets representing units, like the upright strokes on the tablets with the linear inscriptions. Some porcelain plaques found with the bone fish also show this dotted numeration. The marking of porcelain pieces for inlay with linear signs of a similar class is, as already pointed out, common to Egypt, and their appearance at Tell-el-Yehûdiyeh had even led to a theory of Greek restoration,—“probably of the time of the Ptolemies.”<sup>2</sup>

An interesting feature of the case is that, on the back of some of the Tell-el-Yehûdiyeh plaques, the Greek-looking signs are replaced by ordinary Egyptian hieroglyphs. Out of the linear signs found there, of which there seem to be twelve varieties, eight are almost or quite identical with types found on the Knossian bone fish. On the other hand, in Egypt, a series of linear signs of the same class occur as marks on pottery from prehistoric times down to the latest dynasties,<sup>3</sup> and those

<sup>1</sup> Porcelain plaques, some making up a scale or feather design, with signs and dots, have now been found by the Italian Mission in the Palace at Phaestos.

<sup>2</sup> In pointing out the parallelism of the signs as to Knossian plaques with those of Tell-el-Yehûdiyeh, in my previous Report (p. 42), I was not aware that this suggestion had been made (Brugsch Bey, *Rec. des Travaux*, etc., 1896, p. 1 *segg.*). Dr. Von Bissing, who kindly called my attention to this, informs me that these marks on Egyptian porcelain plaques, to which he has for years directed his attention, are extremely rare.

<sup>3</sup> See Professor Petrie's table of these signs, *Royal Tombs of the First Dynasty*, Pt. I. (1900), p. 32.

found on the porcelain plaques may be regarded as a selection from a large existing class.

It is possible that some such selection had been adopted for purposes of arrangement by an ancient guild of Egyptian inlayers. The reappearance of similar forms in Crete must in any case be taken in connexion with the fact that they are there employed by the artisans of a similar craft, who were copying the Egyptian methods and patterns of inlaid work, whether in porcelain, bone, or ivory. The bone fish, as may be seen by comparing them with the ivory pieces of the same form fitted into the medallions of the gaming board, go with the central lozenges with incurving sides to form a disk pattern of typically Egyptian character. Porcelain disks with this design occur already under the Eighteenth Dynasty, and the enamelled plaques, also presenting linear signs below, found in the Throne Room, like those of the fourth shaft-grave at Mycenae, were simply copies of these contemporary Egyptian models. It is reasonable to believe that the similar linear signs that accompany the products of this Cretan offshoot of the Egyptian inlayers' art were in many cases actually taken over from the old Egyptian series.

It is to be observed that these signs do not correspond with the character of the ordinary linear script of Knossos. They are equally distinct from the pictographic group. Neither do they agree with the signs cut on the stone blocks several of which, such as the predominant double-axe type, the trident, the star, the branch, the cross-patée and the sistrum-like character, are suggestive of religious symbolism. There is no evidence as to whether these signs on the plaques for inlaying had any phonetic values, but it is at any rate an interesting fact that forms identical with many of the later Greek letters should have been in use for technical purposes in the Aegean world centuries before the introduction of the Phoenician Alphabet. In this case, as in that of the other Cretan sign-groups, a possible survival and eventual reaction on the imported Semitic letter-forms can not be excluded.

## EXCAVATIONS AT ZAKRO, CRETE.

By D. G. HOGARTH.

### § I.—THE ZAKRO DISTRICT.

EXCAVATIONS were undertaken by me on behalf of the Cretan Exploration Fund in the spring of 1901, in pursuance of a programme for exploring the Eteocretan country. Primitive remains had been noted in the Zakro district, by Captain Spratt in 1852,<sup>1</sup> and been more fully described by Prof. F. Halbherr in the *Antiquary* for 1892 (p. 153). They were visited later by others, notably Prof. L. Mariani in 1893. Mr. A. J. Evans in 1894 and 1896 visited the upper valley, and besides giving a short account of what he saw in the *Academy* (July 4, 1896), preserved very full notes made on the spot. When a coastal site in East Crete was desired, he recommended these remains, near a natural port, the last on the directest sea-route from the Aegean to the Cyrenaic shore, to my attention.

The district of Zakro lies on the eastward fall of the highlands, which, rising from the low isthmus of Hierapetra, form the Eteocretan peninsula. Their last elevation runs as a continuous naked ridge from north to south and from sea to sea right across the butt of the island, parting the central upland, of which Praesos was the centre, from the eastern sea ; and their final slope is divided into four basins opening to the east. The two northernmost of these contain respectively the sites of Eremopolis (*Itanos*) and Palaikastro, the two southernmost those of Zakro and Xerokambos (= *Ampelos* according to Spratt, Halbherr, and Evans, but very doubtfully). The southern part of the mountain barrier is the most rugged, and the

<sup>1</sup> Pococke, to whom Spratt refers, mentions no ruins and was obviously never at Zakro.

natural access to the southern basins is not from their own *hinterland* on the west, but from the basin of Palaiokastro, itself entered by an easy pass from Sitia behind the ridge. Of these four basins, that of Zakro is by a little the largest.

The spur, which divides it on the north from the basin of Palaiokastro, bends round southward in a direction parallel to the coast-line, and further subdivides the Zakro district into a broad and undulating upper trough on the west, in which lie the settlements of Karoúmbes, Azokéramo, Kelária, Adhravásti, and Epáno Zakro (the last by far the most considerable); and on the east two small deltaic plains at the mouths of the gorges, through which escape the waters of the upper trough, collected on the high western

#### THE EASTERN HALF OF CRETE.

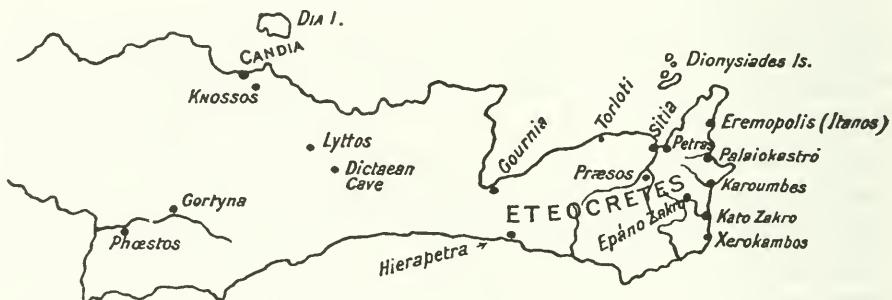


FIG. 37.

ridge. Both these deltas contain conspicuous megalithic ruins, and both show signs of having possessed harbours in antiquity. At the apex of the northern delta, that of the Karoúmbes river, are two groups of Cyclopean buildings,<sup>1</sup> of two of which several courses remain, and near the natural port, formed by a horseshoe of high reefs, are other ruins less well preserved. These buildings have in no case retained enough earth to make their excavation worth undertaking, but the character of their construction and the sherds lying about them sufficiently show them to belong to the same period as the town about to be described in the southern delta.

<sup>1</sup> Mentioned by Spratt (I. p. 234), Halbherr (*Ant.* 1892, p. 153) and Mariani (*Mon. Ant.* vi. p. 298).

The second delta spreads fanwise from the point at which the principal stream of the district, the Zakro river, finally escapes from a cañon, some five miles long, impassable by loaded animals, with sides for the most part absolutely perpendicular and varying from 500 to 800 feet in height. This delta is larger than that of Karoúmbes, less marshy, and possesses better water. While the latter, therefore, is now without inhabitants, the former contains a small hamlet, Kato Zakro, grouped about a double church of the Virgin of the Ascension and 'St. Antony, and is the *scala* of the district. Charubs and other produce are brought down to it from all the settlements in the upper trough, and three stores stand on the beach for their accommodation. The deep bay, possessing excellent anchorage near inshore (cf. Spratt, *I.c.*), and protected by long headlands from all winds but the very rare easter, is not used only by local coasters, but is the best known *rendezvous* and port of call for the fishing fleets of the eastern islands, which sail annually to the sponge grounds off the Libyan shore from Madrúcha to Bengázi. During my stay of six weeks, three days never passed without the appearance of some of these boats, carrying crews of from ten to five and thirty hands; and often from ten to twenty sail rode at anchor at once. For sailing craft the bay of Zakro is still the principal station on the road from the Aegean to Libya (*v. Plate IV., No. 1*).

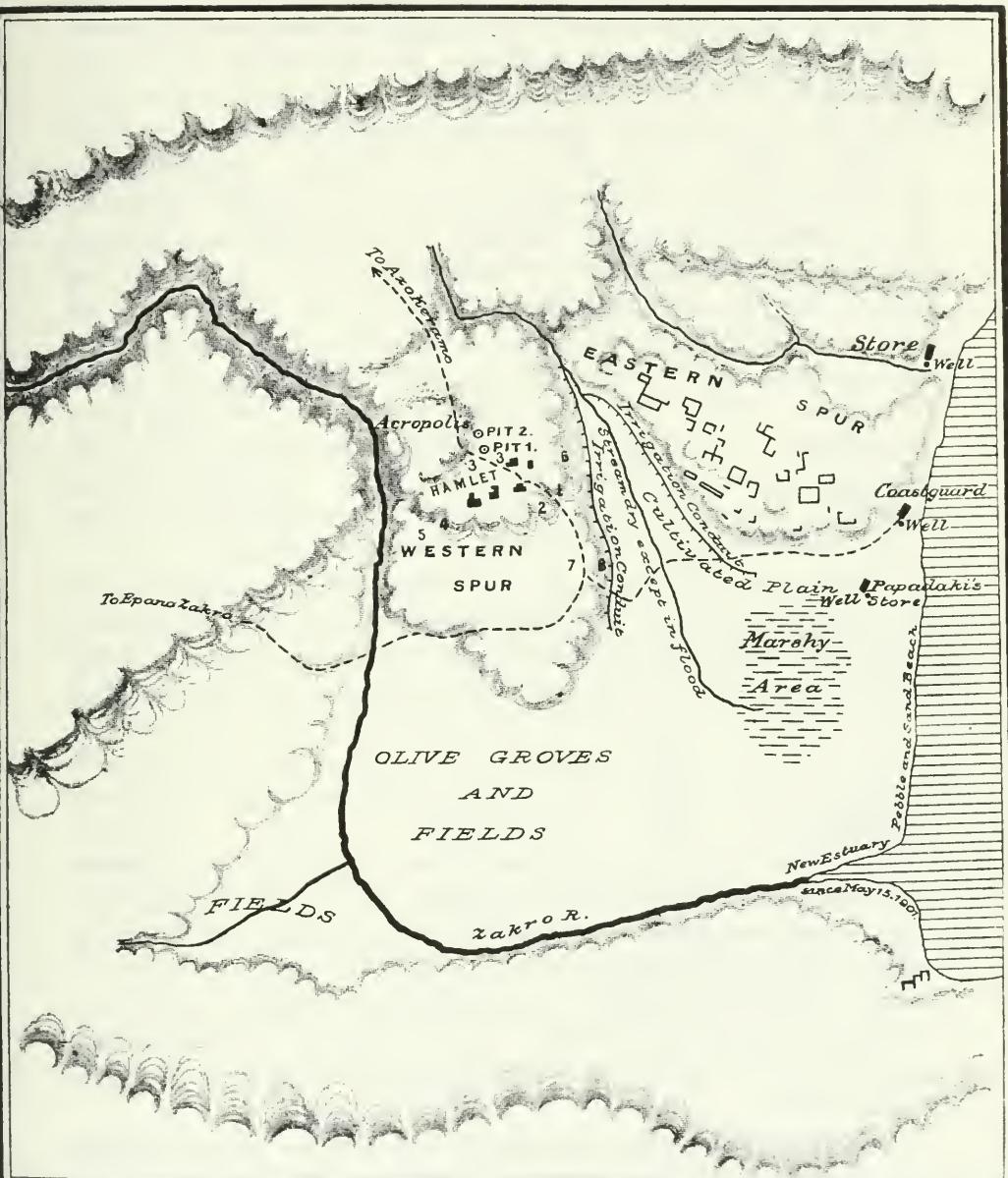
The whole district is exposed to terrific denudation, owing to the heavy precipitation on the abrupt eastern face of the Sitia mountains. I had myself the fortune (or misfortune) to witness a signal instance of this natural process—viz. a sudden flood which swept the whole plain on May 15th, and in two hours changed the face of the landscape, leaving stones and naked rock where fields, vineyards, and groves had been, and carrying to the sea 4,000 trees. Consequently the primitive remains are of very fragmentary and scattered character, and would now be non-existent had not malaria prevented any considerable and permanent modern settlement in this plain. Indeed it appears that for a long time it had no inhabitants at all after the decay of Cretan sea-borne commerce at the close of the Mycenaean period itself. There is hardly a scrap of pottery either on the soil or in it belonging to any subsequent age.

### § 2.—KATO ZAKRO. THE PITS.

The principal remains, already described by Mariani as they appeared before excavation (*I.c.*), occur on two spurs which descend from the range of

hills and are divided by a narrow valley. That lying farthest inland is comparatively rugged and difficult of access and rises to a sharp peak, on which are traces of rough fortification (*v. Fig. A, "Acropolis"*). Falling sheer to the river on the west, and protected by cliffs on the north and east, it is easily accessible only from the south; and on that side remain fragments of massive Cyclopean walls which seem to have formed a continuous curtain above the plain (*v. Fig. A, Nos. 1, 2, 4, 5, Plate IV., No. 2*). Within this fortification are very scanty traces of house-foundations; but so denuded is the crown of the spur, that little evidence could have been obtained of the character of its former inhabitants were it not for the occurrence of two depressions, probably due in the first instance to erosion, but enlarged by man's device. Of these the principal is a bottle-shaped pit, the *Λάκκος* of Halbherr and Mariani, about 18 feet deep by 16 feet longest diameter, with very rough floor and sides (Pit 1). This I found nearly half full of earth with which were mixed an enormous quantity of pottery, and a few other remains. Of the 8 feet of deposit, the three uppermost had been disturbed by peasants who began to plunder the pit some fifteen years ago, but had desisted before Halbherr's visit. The other five feet were untouched. I may summarise their contents, first saying that there was no sign of stratification—no layers of ash alternating with pottery, as in the Dictaean Cavern. There was also hardly any trace of bones or other organic remains. The pit was apparently filled with tumbled pottery, stone vessels, and rough blocks, among and over which water had laid a thick loam. As all who had previously seen it expected, it proved well worth exploration, although Halbherr's hope that it might serve to reveal the ancient name of the site was not realized, all its contents being of much earlier period than had been suspected.

Three obsidian flakes were found in the pit and a few minute fragments of bronze pins and blades, but not a trace of iron. Some bits of stucco-plaster, painted blue and yellow, and fragments of bone implements also occurred. The remains of stone vessels were neither numerous nor remarkable. Such as there were proved to be either small bowls in steatite, or ruder utensils, such as mortars in rough limestone. A spouted jug in coarse blue-veined marble of a typically ceramic shape alone calls for special mention. The mass of the find was in earthenware, and included about eighty unbroken vases among thousands of fragments.



B. V. Darbishire &amp; O. J. R. Howarth,

Yards 100 50 0 100 200 300 400

Oxford, 1907

FIG. A.—SKETCH MAP OF THE ZAKRO DELTA.

Four-fifths of this pottery may be referred to the best Knossian Mycenaean period, and such of it as is of painted fabric, is distinguished equally by the richness of its decoration, and the frequent use of white pigment added after firing. Two vases in particular may be mentioned, which show beautiful white floral designs painted over the already glazed decoration. Shallow bowls, decorated both inside and out, prevailed in enormous proportion. The remaining fifth was of the unmistakable Cretan pre-Mycenaean ware known as "Kamares." But while the forms (straight-sided cups of the Vaphio type and one-handled bowls) and the fabric and glaze are identical with that of the Kamares ware of mid-Crete, the schemes and colouring of the decoration vary from those observed there, and coincide exactly with the prevailing schemes on the Zakro "Mycenaean" ware. The natural inference is that we have here a very late Kamares fabric, immediately preceding the introduction of the Mycenaean glaze and pigment. But the fact that this Zakro Kamares ware passes without any sign of violent change into Mycenaean is very important and contrary to what has been observed at Knossos.<sup>1</sup>

Of hand-polished neolithic ware, whether plain or incised, there was not a trace in this pit; nor was the geometric Kamares ware, which seems immediately to succeed it,<sup>2</sup> represented. The more distinctly metalloid forms, so characteristic of the mid-Cretan ware, were also absent. These seem to belong to the acme of the Kamares period; and the fact that they were not found at Zakro supports the theory that the settlement there belongs at earliest to the close of the pre-Mycenaean phase of Cretan civilisation.

I have said that this pottery was not stratified. Kamares fragments were found both above and below Mycenaean. This fact might be explained either by supposing the contents of the pit to have all been thrown in together in the later period, and to have been the accumulation of centuries; or by supposing that at some subsequent date the pit was very thoroughly rifled for metal objects and other valuables, and its contents were turned over in the process. This would explain the small proportion of metal found.

This remarkable pit may have been a mere ordinary refuse receptacle

<sup>1</sup> The special study of this pottery was undertaken in Candia by Mr. J. H. Marshall; but an attack of fever compelled him to leave the island prematurely, and having now accepted a post in India, he has had to abandon the work. I must therefore defer a detailed report.

<sup>2</sup> v. *Journal of Hell. Studies*, xxi. p. 96.

for the small town about its mouth. But when I note (1) that it has been enlarged by man's labour, though not to serve any purpose of burial; (2)

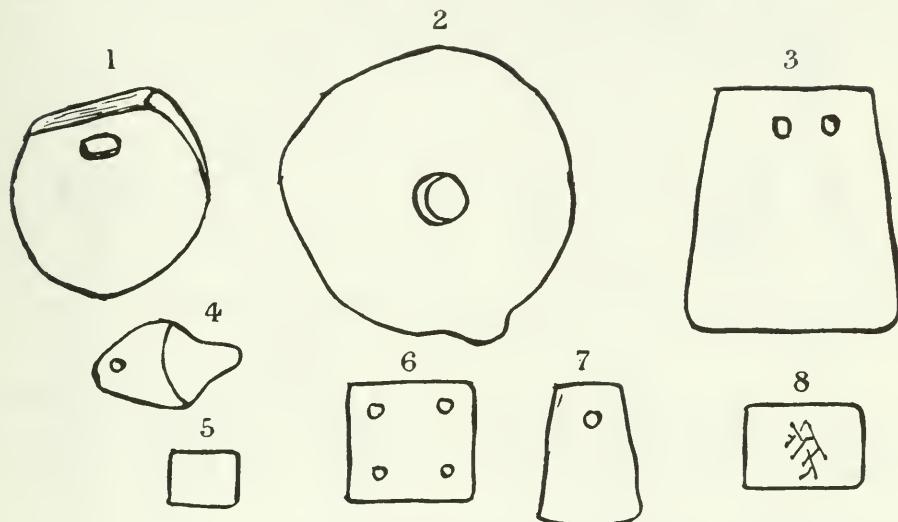


FIG. 38.—TYPES OF PIERCED CLAY OBJECTS FROM THE PITS (1 : 2).

that it contained a large number of complete vases, almost all of types which prevailed in the sanctuary on Dicte; (3) that its pottery is of

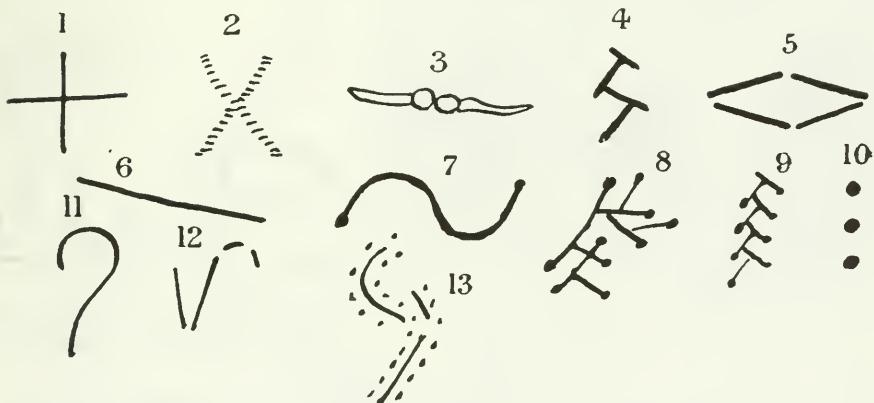


FIG. 39.—CHARACTERS INCISED ON PIERCED CLAY OBJECTS FROM THE PITS.

richer character than was commonly found elsewhere at Zakro—I am inclined to support the conjecture made at a venture by both Halbherr

and Mariani, and see in it a receptacle for the superfluous *ex votos* of a neighbouring shrine. A similar reason has been suggested for the existence of pits at Knossos and in Melos (*B.S.A.* vi. p. 72), and for the trench opened by Prof. Petrie in the Apollo Precinct at Naukratis.

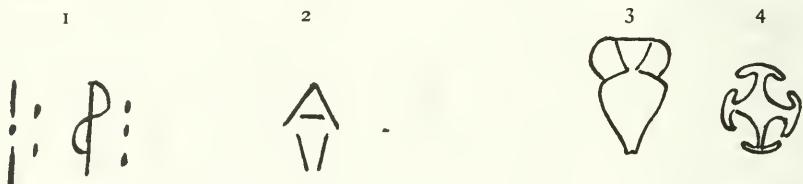


FIG. 40.—CHARACTERS ON TWO POTSHERDS AND TWO WEIGHTS FROM HOUSES OF THE LOWER TOWN.

In the earth about the pit's mouth were found (besides much pottery thrown out by the earlier searchers) a three-faced intaglio in steatite of coarse style, a pear-shaped bead in milk-agate, and a silver *scudo* of

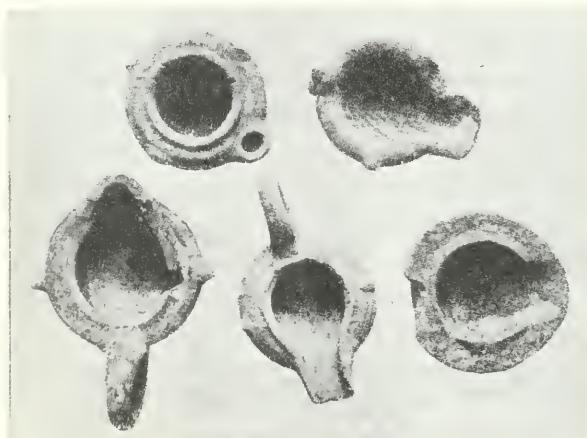


FIG. 41.—“LAMPS” FROM PIT 2 (1 : 4).

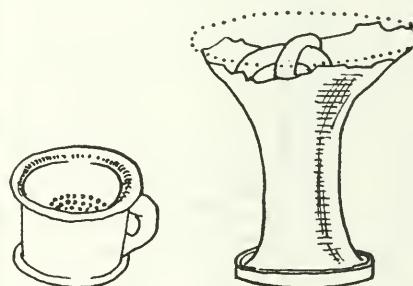
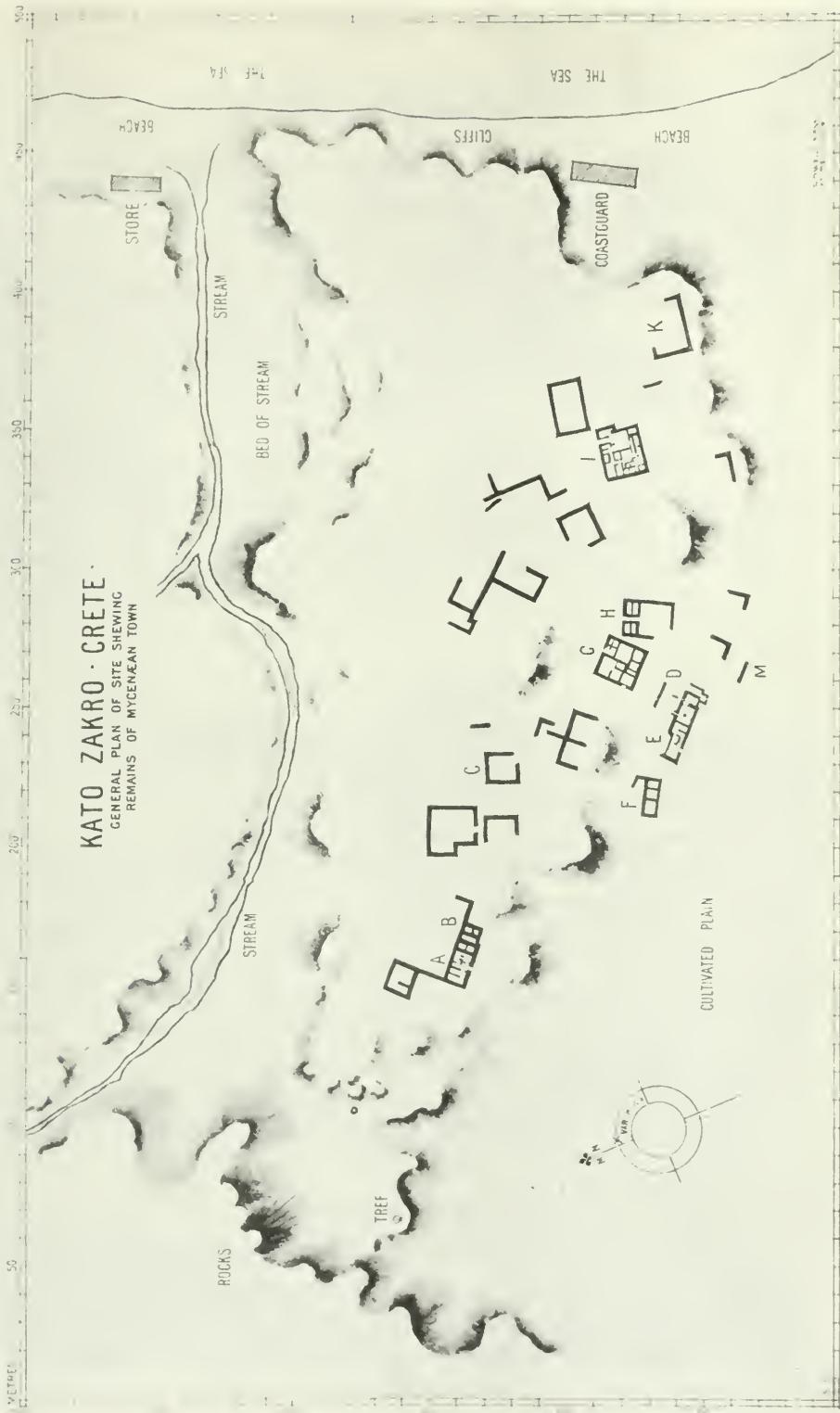


FIG. 42.—STRAINER AND CROSS-HANDED “FRUIT STAND” VASE (1 : 5).

Francesco Erizzo, Doge of Venice, 1631-1646. As is invariably the case on such sites, vast numbers of clay objects pierced for suspension occurred both in the pit and elsewhere at Zakro. I give the different types in Fig. 38, and the symbols cut or impressed on certain of these, in Fig. 39.

Plate III.

KATO ZAKRO · CRETE.  
GENERAL PLAN OF SITE SHewing  
REMAINS OF MYCENEAN TOWN



MAP OF THE EASTERN SITE, OR LOWER TOWN,

(FIG. A.)



The second pit (Pit 2) was about fifty feet to the north of the first. Two successive lime kilns had been constructed above it. It was of irregular shape, and of a depth ranging from 1·50 at the north to 2·50 at the south end. Below the lime occurred vast quantities of pottery in a much perished condition, including nineteen unpainted lamp-like vessels (Fig. 41). The painted ware was identical with that found in the first pit.

Near the mouths of these pits I found foundations of houses, and others (Fig. A, Nos. 7, 8) lower down (*ibid.* 3, 3); and at some distance to the south-west I discovered a house (*ibid.* 5) still retaining a little deposit and unbroken vases of the latest Mycenaean period. Another house was not entirely destroyed on the east slope (*ibid.* 6). Remains of brick party walls survived and two vases worth representation (Fig. 42). Both are in unpainted ware, the "strainer" having a buff slip. On all the rest of the slopes of this spur, rock occurred close to the surface wherever I probed.

### § 3.—THE LOWER TOWN.

The eastern and lower spur (*v. Fig. A, and Plate III.*) rises steeply from the opposite side of a shallow cultivated ravine, the basin of an insignificant torrent whose waters are artificially conducted through two conduits under the slopes. In the great storm of May 15 this torrent broke bounds and swept a channel anew down the centre of the ravine. From the crown of its western and southern slopes the spur falls away gently northward to another torrent bed. Seawards it terminates in a cliff thirty feet high. The summit and northward slope are denuded equally of earth-covering and of ancient remains. On the westward and southward slopes appear massive walls which for many ages have retained a few feet of earth terrace-wise, and have been from time to time repaired to prevent the escape of this earth. Their outlines were much obscured by growths of wild olives, almond, and charub trees, and by a cumber of fallen stones.

### § 4.—HOUSE A.

On the westward face of this spur at its highest point, three sides of a tetragonal structure of Cyclopean style were conspicuous (Plate IV., No. 3: this I take to have been Mariani's "Temple"): and as this obviously had retained some feet of deposit I explored it first (House A). To

north and east of it, foundations of other quadrangles, apparently in connection, were visible, but, being on the crown of the spur, these held up no earth. Feeling along the soft rock surface from the east, I found it to fall suddenly away beyond a long revetment of small unbonded stones. The space contained by this and the Cyclopean walls, a space of some 17 feet by 43 feet, was the area to be excavated (Plate IV. 4).

*A* proved to contain eight rooms, preserved to an average height from their floors of five feet six inches, and entered by a wide door from the gorge, along whose eastern slope runs a paved road. The two rooms (1, 2) built of unfaced stones were mere cellars, used for storage and entered from above. They contained many small ashlar blocks and large bricks, remains of an upper structure. The other rooms are distinguished by having party walls of flat lightly baked bricks, laid on stone foundations. These bricks are unusually large, being of two sizes, the larger, 24 inches  $\times$  16  $\times$  4, the smaller, 13 $\frac{1}{2}$  inches  $\times$  12  $\times$  3 $\frac{1}{2}$ . It has long been supposed that the upper courses of "Mycenaean" walls were in brick, but no bricks have previously been found *in situ*. The Zakro specimens were well and squarely laid, and admirably preserved. A coat of mud-plaster, mixed with coarse straws, faced the brick; and over this was laid in some places a finer painted plaster.

The entrance hall (4) is floored with pebble concrete ("tarazza"). It contained certain interesting features. A square pillar base (v. plan) rests on a rough stone plinth let into the fine pebble concrete floor. Its height from the plinth is 1' 2". All four sides have a double coat of plaster, the inner coarse and 20 mill. thick, the outer fine, 4 mill. thick, and painted in a blue monochrome. The top is smoothed but not plastered, and as no other blocks and few bits of plaster lay in the vicinity, I feel certain that its continuation was represented by a quantity of burnt straight-grained wood found standing upright above it. The position of this pillar is hardly consistent with its having served any serious structural purpose. Though it stood centrally in the entrance hall, the first object to strike the eye of the incomer, it was barely a foot from the massive brick wall, behind which is chamber 6. If it was a sacred "Pillar of Stablishment," the probability that its main part was of wood is especially interesting.

The group of basins on the left of the main entrance is remarkable. The larger is 2 ft. in diameter and communicates through a wide vent with the easternmost of the smaller ones, the rim of which is level with the bottom of its feeder. The third small basin is on the same level, but independent. Nothing was found in any of these basins but earth. A similar group was found later in another House *E*, also in the entrance hall, but not so near the doorway; and two, the one feeding the other, by the "wine-press" in House *I*, to be described presently. It should be mentioned here that in *A* the upper basin was backed by a wall of packed earth and small stones, on the further, *i.e.* S., side of which was a vertical face of thin uncoloured plaster preserved to a height of 3 inches only. This plaster face, turning horizontally, continued for a short way southward over the concrete floor, and then was lost until it reappeared near the south wall, and turned again vertically up the face of that wall. It seems to follow that in the south part of the entrance hall was a shallow tank, less massive than the "press" in *I*, but standing in like relation to a group of basins. Its eastern limit could not be determined.

## KATO ZAKRO, (CRETE)

## MYCENÆAN HOUSES.

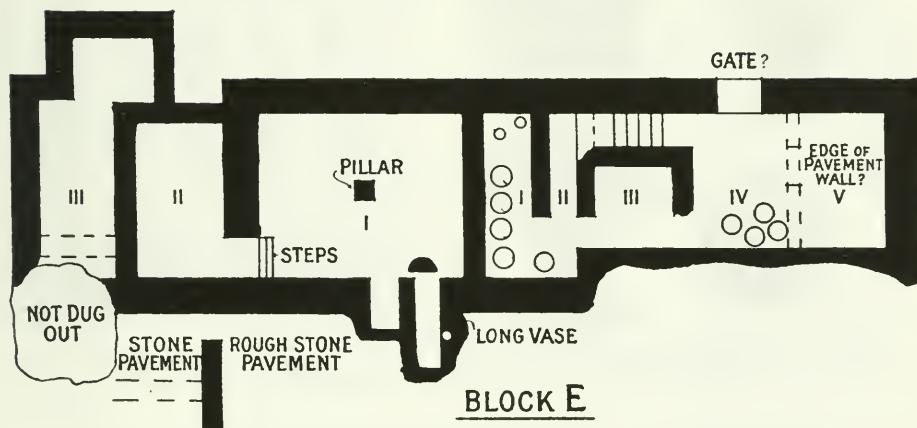
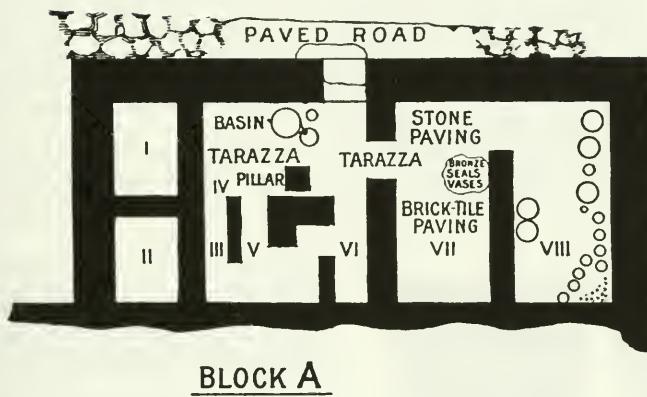
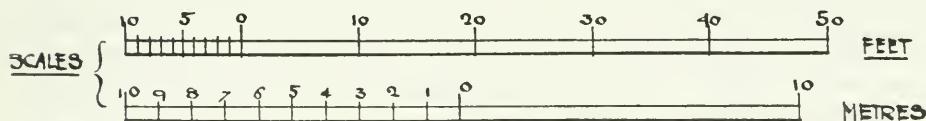
BLOCK D

FIG. B.

Within the main western doorway lay a very solid concrete floor made of unusually large pebbles. The threshold, a single block much worn, 4 ft.  $\times$  1.8  $\times$  1.3, bears three dowel-holes, two at the south end and one at the north. On the outside a single rough step descends to a rudely-paved way about 4 ft. wide, running under the face of the structure.

In the entrance hall nothing was found but remains of two small jars lying in the upper earth, as though fallen from above. Nor were rooms 5 (except where, in the communication with 3, a beautiful marine vase was found) or 6 more productive. It is hard to see what purpose these strait chambers can have served. The massive character of their west wall, combined with the fact that they had no flooring but mud and were full of carbonised matter and fallen bricks, larger than those of their walls, suggests that they (like 3) were cupboards under a stairway or landing, by which access was obtained to an upper structure.

A broad doorway leads north from the entrance hall into two large chambers, which, not only from their size but the character of the objects found in them, must be regarded as living rooms. No. 7 is paved with stone slabs at its west end, where it gives passage to No. 8, but for the rest



FIG. 43.—TYPICAL PAINTED VASES FROM  
HOUSE A (1 : 5).

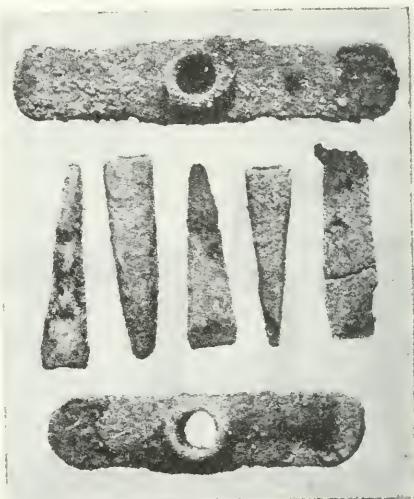


FIG. 44.—BRONZE KNIFE, MATTOCKS AND  
DRILLS FROM HOUSE A (1 : 4).

with burnt brick tiles laid on a few inches of packed earth which contained fragments of "wavy-stripe" Mycenaean ware, but not a scrap of Kamares ware. Immediately on the tiles lay carbonised matter mixed with potsherds and bits of painted plaster showing traces of a yellow pattern on blue ground; but above this, at a height of 1 ft. 6 inches from the floor, and under a mass of disordered bricks of the largest type (24 inches  $\times$  16  $\times$  4) occurred a remarkable group of objects, lying at all angles as if fallen from above. The first to appear were fragments of a large bronze knife or sword: then a large steatite "lamp" or altar, so greatly calcined that it mostly fell to dust; then two almost perfect painted vases of the "hole-mouth" strainer form with parts of about ten other painted vases all belonging to late Mycenaean types (Fig. 43); then two heavy bronze tools, like broad mattocks, and four massive round bronze points, solid except for a slight indentation at the base. As these can have been but weakly attached to any shaft, they can hardly be spear heads. I suggest that they were drills for agriculture (Fig. 44). Finally there was scattered over a small and roughly circular space among and about the bronzes an immense number (nearly

500) of well preserved clay nodules bearing impressions of intaglios (Fig. 45). Most of these have two or three faces, and were evidently seals attached to documents.<sup>1</sup> Among them lay a broken baked clay wedge 48 mill. long  $\times$  12 mill. broad, showing obliterated characters in the linear Knossian script on both faces; and a roughly circular tablet (28 mill. diam.) of fine baked red clay, bearing on one face an inscription in the same script traced with a fine point, and on its rim two "countersigns" impressed faintly with a signet-gem (type, two wild goats). On another part of its rim appears also the impress of some textile material.

The sealings all have been hardened by fire, but whether in the baking or accidentally by the conflagration which evidently destroyed the structure in which I found them, it is impossible to say. The fact that they were found over a restricted and roughly circular area suggests that they had fallen all together from a height on the collapse of some receptacle in which they had been stored. Ere they fell, the floor of the chamber had been covered to a considerable depth with burnt matter and other deposit. The large bricks, whose pent over them is mainly responsible for their preservation, look like the flooring of the terrace above. It would appear, therefore, that these sealings, tablets, bronzes, vases and the rest had been stored either among the rafters of the lower terrace, under a painted ceiling, or below the floor of the upper terrace, perhaps in a sunken receptacle made of bricks, like the stone *κασέλλες* let into the floors of Knossian galleries.



FIG. 45.—MINOTAUR TYPES ON CLAY SEALINGS FROM HOUSE A. (Enlarged 1 diameter.)

Room 8, the last and largest, has a floor of hammered white earth, on which rested in various stages of ruin five large jars ornamented with degraded rope mouldings, nine small rustic amphorae of the "pinched mouth" class, and (in the north-east corner) thirteen rustic handleless cups of the common Mycenaean type, turned bottom upwards. All were empty.

To north of this building soundings showed an artificial filling of stones. The rock slopes upward to the surface after a few feet, and, as has been already said, lies high above the building on the east, bearing the stone foundations of other buildings apparently connected with the lower one. To south I dug out stone cellar-like chambers (B. 1. 2. 3) precisely similar to A. 1. and 2. The massive returning south wall of A seems to mark them off as distinct, but they must be cellars of the same upper building. Some unpainted vases were found in fragments in the earth floor of 3 at a depth of five feet.

<sup>1</sup> These will form the subject of a special article to appear in the *Journal of Hellenic Studies*.

I have dealt in detail with this building A, albeit very small, because it is perhaps the most significant domestic structure yet uncovered on an Aegean site. It has been left open and walled off. It represents, however, evidently only the fore part of a perished group of buildings mostly situated on the upper level, which is the crown of the spur. The size and situation of this group, in which alone among the buildings on this site fine glazed pottery and such objects as tablets and sealings were discovered, suggests that it was the residence of the local chieftain, or governor. The fore part (A) I conjecture to have had an open terrace roof. Behind this rose the main building, with which the cellars A. 1. 2. and B. 1. 2. 3, and the stairway carried up through A. 3. 5. 6 communicated. What the plan of that main building was cannot be determined from its own denuded remains, but some idea of it may be gathered from the two large upper houses (G and I) afterwards excavated.

#### § 5.—HOUSES C. D. E. F. H. K. AND M.

Before describing these houses, however, I will mention briefly a number of other buildings. On the general plan (Plate III.) a number of tetragonal structures are represented, mostly lying on the crown of the spur to south-eastward, but not lettered. These were all tested but found to be denuded to (and in places below) their foundations. The party walls and doorways could no longer be distinguished. The square, marked C, is in similar case but within its south-east angle a cellar had been sunk one metre into the rock, on the floor of which was a small heap of bronze implements (Fig. 46). This hoard consisted of two solid axes, laid side by side. On one hand were five thin plates with rounded ends, four of which were found adhering in pairs. They show no perforation or other signs of having been attached, but have a finely serrated edge. Under these lay three lances or knife-blades, one with six gold-plated studs of attachment. On the other hand of the axes were a number of fragments, apparently remains of the sides, handle and feet of a large cauldron. Under and about the bronzes was a good deal of broken painted pottery, many small cups and a rude stone trough. On the surface of the soil above this cellar a three-sided steatite lentoid of poor and late work was picked up.

At the foot of the slope I explored a succession of buildings marked D. E. F. and M. on the map. The depth of earth in these was consider-



STONE BOATS, FOUND FOR AFRICA, LYING AT ZAKRO.



CYCLOPEAN TOWER ON THE WESTERN SPUR.

1.  
2.  
3.  
4.  
5.  
Sister ↓



S.W. CORNER OF HOUSE A.



INTERIOR OF HOUSE A, FROM THE N.W.



able, and raised hopes not realised by their character or contents. The group of chambers D. E. belongs evidently to the fore part of a building on a higher level to east, which has almost wholly disappeared. The only entrance from the outer air seems to be in the north part of E, which is preserved to an average height of 26 inches only. This door gives access to a hall (4) at the farther side of which was a group of four basins, resembling those in A. A room (5), paved with concrete, opens to left, but its south wall has entirely gone. To right a stairway, of which four steps are preserved, ascends to the upper terrace (Plate V. 1). Perhaps it was continued by a wooden ladder placed in the narrow chamber at



FIG. 40.—BRONZE HOARD FROM HOUSE C (1:4).

its head. Seven well preserved *πιθοί* (one of which had its stone cover intact upon it) distinguished the last chamber on the right (1), but nothing else worth mention was found in E. except two bronze lids on the floor of the entrance hall. For the sake, however, of the stairway, I left this group of chambers open. Its ruin was not, apparently, due to fire but to natural decay.

The chambers lettered D. have no approach from E. and none from the west or south. Their walls, preserved to an average height of five feet, were found unplastered, and their floors unpaved with anything but hammered earth. The deposit in these rooms was full of bricks, brick earth, and carbonised matter. The rough stone foundation of a square

central pillar alone distinguishes the largest room, from which a second chamber is reached by three rude steps averaging four inches high. In neither room was anything of interest found, hardly even a fragment of painted pottery. The third room was evidently (what the others were probably) a mere cellar. It contained much broken pottery of the commoner rustic sort (tripods, cups, &c.) lying in a heap at the lower end of its floor, and in a hole of the rock at its upper end occurred a small deposit of painted Kamares sherds. The whole group of chambers must have been approached by stairs from the ruined eastern upper house of which they were appendages. Perhaps the narrow recesses, which run into the rock eastward from D. 1, contained wooden ladders. In the northern of these

recesses a long vase in coarse unpainted ware four feet four inches high with a diameter of only seven inches was found upright, half engaged in the wall. The bottom was pierced, and it had two handles midway.

The three chambers to north of this group (F) were cellars, filled with brick earth fallen from above, mixed with kitchen pottery only, and some fragments of bronze.

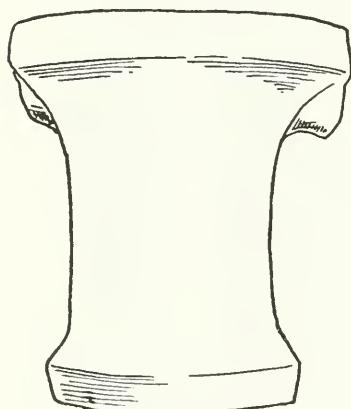
They belonged to a large building of which very faint traces remain to eastward. In the level bottom of the ravine, immediately south-west of D, exist scanty

FIG. 47.—“ALTAR” FROM HOUSE M.

(1 : 5)

remains of another group of chambers (M.) preserved to a height of two feet only. In a trial here I found the altar (?) (Fig. 47).

A number of trials to eastward showed that nothing was preserved but the large house I and two fragments of upper houses on either side of it (H. and K.), whose brick party walls remained to a height of about one foot at their eastern ends, where sheltered under the talus fallen from the crown of the spur above. Too little was left of either to make these structures informing, but each contained remains of a rubbish heap from which certain objects of some interest were extracted. In a chamber in H, were found a round worked stone, inscribed with six dots on one side and a symbol on the other :: ☐, evidently a weight, a perfect “blossom” vase in steatite and a small painted clay bowl of late Mycenaean type. In the central



passage was an extraordinary heap of rustic pottery just under the surface. In K were found a large coarse amphora of unusual squat form ; fragments of a painted filler, and of a vase with "embossed" surface, a degradation of the Kamares "finger work"; the knob from a knife-hilt in striped blue-grey agate, and a head of a wild goat in greenish clay with yellow slip.

Two large houses, G. and I., lying almost on the ridge of the spur, deserve more detailed consideration. Having very massive Cyclopean outer walls they had retained earth and been for many ages fenced off as cultivation plots.

#### § 6.—HOUSE G.

The Cyclopean south-west wall of G, immediately behind, and roughly in a line with, the group D. E., is the most imposing ruin on the site, the outer face rising 15 feet from the foundations at the north-west corner.

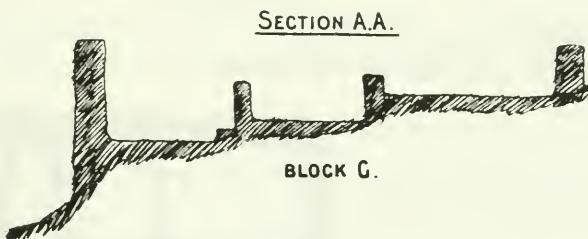


FIG. 48.—SECTION THROUGH HOUSE G.

This height however is largely due to its being a retaining wall : the drop on the inner side to the lowest floor level of the house itself, in room 4, is only 8 feet. The largest blocks of which this wall is composed average 4 feet  $\times$  3  $\times$  2·6, and there is very little filling in of small stones. The other outer walls are of the same character, but lessen in height with the rise of the hill, till of the north-eastern only a single course remains. (*v. Section AA*).

This house was unfortunately in the last stage of ruin, and its plan was only to be imperfectly traced. Nothing but the substructures or cellars at the back (the south-west) had more than two feet of earth in them, or walls preserved above their foundation courses. Consequently hardly any objects were recovered from this house beyond broken pottery : but that

## KATO ZAKRO (CRETE)

MYCENAEAN HOUSES.

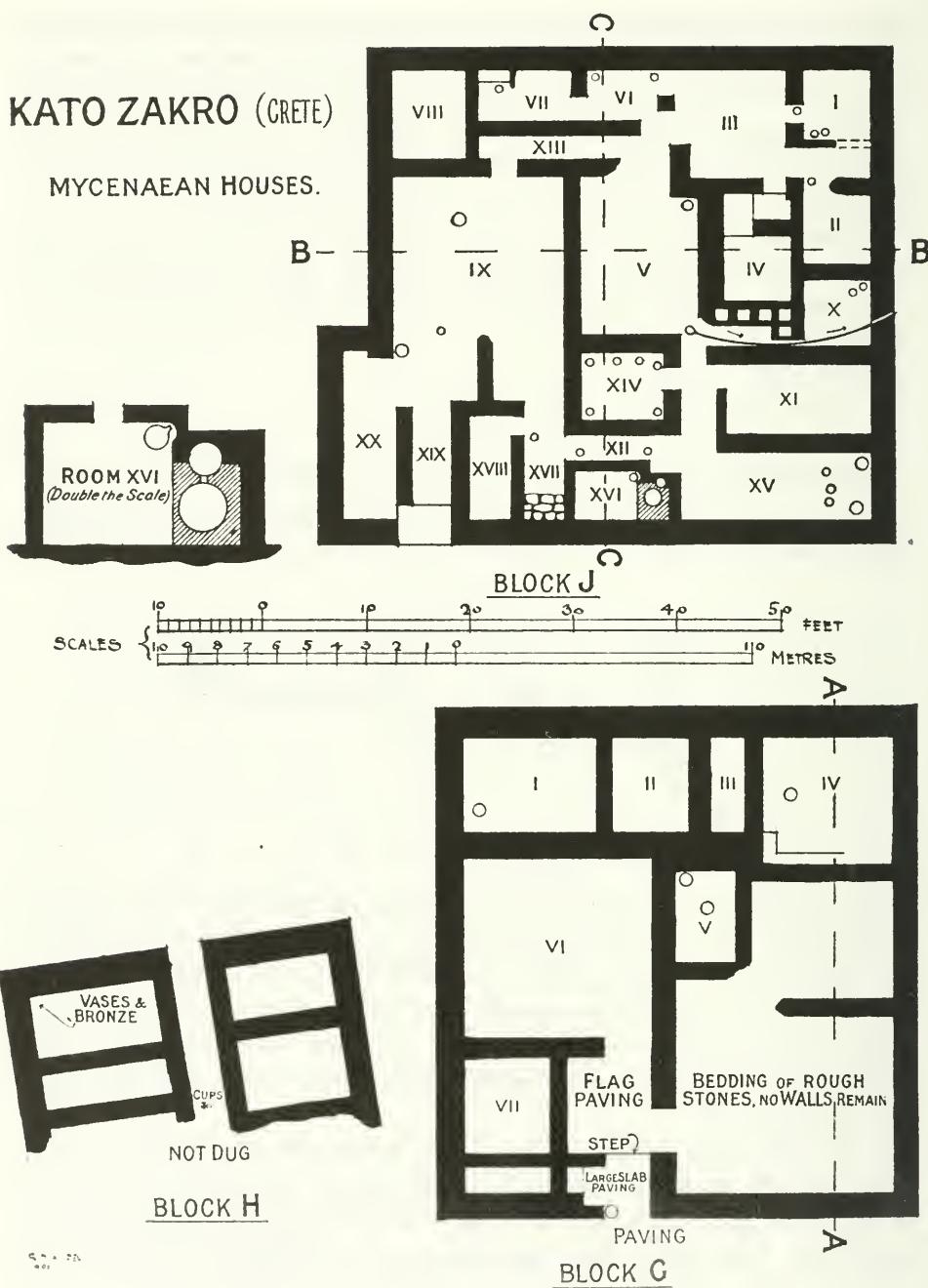


FIG. C.

was of a kind to show that, in the latest Mycenaean age, the inhabitants maintained a certain luxury. Alone among the Zakro houses, this contained evidence of having possessed painted *πιθοι*: large conventionalised polyps sprawl in matt red over a yellow ground, or their bands of incised and moulded ornament are relieved by crimson stripes.

The house was entered (*v. plan*) by a wide doorway from a roadway running from north-east to south-west along the high ground to north. In this doorway on the left is a small round column base (1 ft. diam.) *in situ*. The door led into a small paved vestibule provided with a low stone bench 10 in. high along the left hand wall. From this a step of 4 inches descended to a second and larger paved vestibule, whence opened immediately on the right a doorway of the same width (4'8) as the vestibule entrances, conducting into what seems to have been an inner open court-yard. The rock over all its area is but very roughly levelled and seems to have been rudely paved with round stones. Here were found remains of larger *πιθοι* which must have stood about 5 feet high. (*v. sketch, Fig. 49, of entrance hall from the inside*).

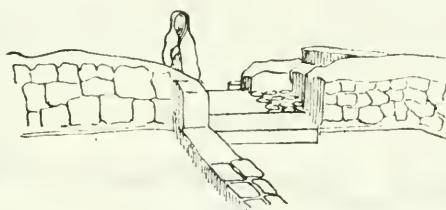


FIG. 49.—SKETCH OF ENTRANCE TO HOUSE G. FROM WITHIN.

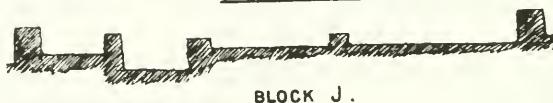
Returning to the inner vestibule we see on the left two small chambers denuded to the foundations; it is impossible to say where their doors were. To south-west, however, a second low step leads into the main hall of the house, a perfect square, 17 feet × 17 feet (6). Nothing remains of it but foundation courses, and rock was found at only 1 ft. 6 in. below the surface of the soil. All trace even of pavement had vanished; but from ashlar blocks lying in the deposit it is plain that its walls had been in part of good masonry. Probably above a certain height they were continued in brick. One block bore the incised signs **|T|**:

To south and west of this hall the vanished chambers of the house stood over a basement, which survives as a series of doorless cellars about 5 feet deep. Two ashlar blocks remained in position on the rough wall which divides cellars 3 and 5, to attest the character of the upper structure. Cellar No. 1 has a rough rock floor and inner walls of small unplastered masonry. A *πιθος* was found in position, and the deposit contained fallen bricks, many fragments of painted ware, four bronze fish-hooks, a bronze ring, and a flake of obsidian. Cellar No. 2 yielded a "hole-mouth" vase of late Mycenaean buff glaze with red-brown "splash paint" ornament. No. 3, a mere slit, was empty. No. 4 can claim to have been more than a cellar, being paved with pebble concrete in which a *πιθος* has been sunk 2 ft. 6 in. to its rim. Round the south-east angle runs a bench 1 foot high and 1 ft. broad composed of ashlar blocks with ends "splayed," so as to leave joints opening trianglewise. This is precisely parallel to the bench in House B at Knossos, figured in *B.S.A.* vi. (Plate IV. 4). Cellar 5 contained two *πιθοι* and six pear-shaped pierced "weights." The space to north-west of this seems to have contained a sixth cellar of larger dimensions, but now utterly ruined. From it were obtained a tiny *Bugelkanus*, a bronze blade, and a fragment of a twisted column of steatite. This house, unlike A., D., or E., is obviously a self-contained whole, not a mere forepart. The imperfection of its plan, however, makes it a less valuable discovery than the large house to eastward (1).

### § 7.—HOUSE I.

Well-preserved Cyclopean walls on three sides (W., S. and E.), and brick earth within their area marked a likely spot. In the event, the space so enclosed proved to contain the most elaborate and complete ground plan discovered, and a greater number of objects (*e.g.*, over 70 vases) than any other house. Unfortunately the deposit was shallow, averaging under 3 feet, and the rooms and their contents, though not calcined by any conflagration, were in ruinous condition. The feature of this building was the preservation of its fine pebble concrete floors, and wall plaster. I had all the rooms cleared by knife-work, and the edges of plaster very carefully followed. By those edges in certain cases the position of walls, that have themselves vanished, was determined (Fig. 50).

SECTION B.B.



SECTION C.C.

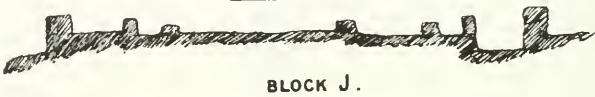


FIG. 50.—SECTIONS THROUGH HOUSE I.

This house, like that last described, is a self-contained whole. It is entered from the higher, *i.e.* the north side, by an accurately squared doorway with a massive threshold block 5' 6" × 4' 6" × 6". The wall is at its highest at this point, rising west of the entrance to 4' 10" in three courses; on the east in two courses to 3' 6". Originally this entrance was in the extreme N.E. angle of the house, but at some period part of the east wall was pulled down and thrown out to eastward, making a chamber (xx.) on the left. A brick wall was then built to form a west side, the end of which now obscures a corner of the threshold block.

The vestibule (xix.), originally paved with stone, gives access to a large Court (ix.), apparently unpaved and unplastered. Much brick ruin, two large *πίθαι* and some fragments of stone vessels were found in its area. On its south side, and also on the north, are doorways by which the main rooms are reached. Beyond the northern doorway a stone built room (xviii.), found empty, is passed, and certain well-preserved structures are reached on the right which seem to hang together. The centre of the group is the plastered room or cistern No. xvi. The thin inner walls of this (1' thick) are plastered inside and out and on the top, and they still remain at their original height (2' 3"). The floor is equally plastered, and the narrow door (1' 4") does not go down more than half-way to the floor. The room could thus be filled with water or other fluid to a depth of 1' 2" (v. Section

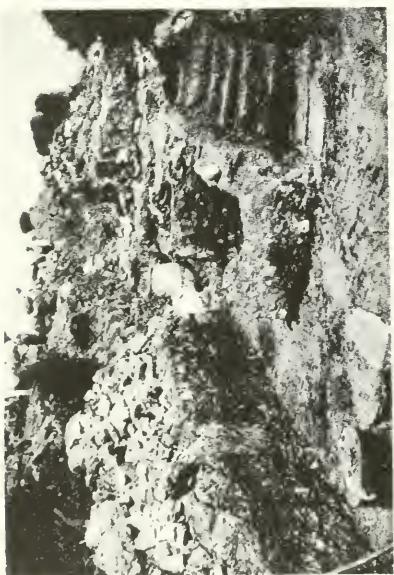




HOUSE I, FROM THE W., SHOWING ROOM XVI, WITH ADJOINING BASINS.



HOUSE I. THE "KITCHEN" AND DRAINS FROM ROOM XI.  
PICTURE 4.



HOUSE I, FROM THE N.W., SHOWING STAIRWAY.



HOUSE I, FROM THE S.E., SHOWING VASES AS FOUND IN ROOM XIV,  
ROOM XVI, TO RIGHT.  
PICTURE 5.

CC). In the south-west corner is a slight recess, where a clay receptacle, 1' 3" diameter, is sunk to its rim in the floor. On the west the wall broadens out as a platform of stones and clay with a step on south and west, and in this are sunk, one below the other, two large basins, whereof the upper, 2' 3" diameter, but only 7" deep, drains (as in A) through a wide vent to the lower (1' 5½" diameter by 2' 2" deep). (Plate V. 2). On the east is a lower platform of stones (xvii.). What purpose was served by this group of cisterns and basins? That of a bath? or that of a wine press? Native opinion inclined to the latter, and perhaps with that view the shallowness of the cistern, and the receptacle sunk in its angle, are most consistent. If this view be adopted, we must see the same purpose in the arrangement of tank and basin in the entrance hall of House A.

Two chambers are now passed on the right, of which one (xv.) has no pavement, and may be judged from the remains of large *πιθοί* found in it, to have been a store. The other (xi.) has its party walls preserved to inches only. Two small plain jugs were found in it. On the left, opens a room (xiv.) which yielded a great quantity of the commoner sort of vases, stamni, cups and small jugs. A unique vessel in very rough unpainted ware, shaped like a six-inch gun shell, and pierced at the point, is figured below (Fig. 51). I have no clue to its use. Seven amphorae were ranged round its walls, each corner being occupied, and in the middle among masses of ashes and burnt bones occurred about twenty pierced stones and several pierced clay weights (Plate V. 3).

A doorway now gives access to the central and largest room of the house (v.) finely floored with concrete and plastered with a stucco, blue in its lower part, but evidently, (from fragments), varied with red in its upper. It was terribly ruined and quite empty, except for a *πιθος* in the south-west corner. Right of its entrance is a narrow chamber supplied with five plastered kitchen troughs raised on a step 7 inches high (Plate V. 4). The surface water from chamber v. was carried off by means of an open channel of baked red clay, 1 inch wide by 1 inch deep, over the floor of the adjoining room (x.) and through a hole in the west Cyclopean wall. Room x. contained two *πιθοί* *in situ* and a broken painted *oenochoe* inside one of these.

Passing out of the central hall by its south door we are confronted by a base made of bricks, 1' 3"×1' 3"×4" (the ordinary size of bricks in this house), standing in a much ruined room (iii.) whose north wall could be traced by the line of its plaster face only. This room was empty, but it gave access to another sunk chamber (iv.) with plastered walls and paved floor (7. section BB.).

Its arrangement recalls the so-called "sunken tanks" of Knossos and Phaestos. On its pavement in the north-east corner lay a mass of vases, mostly of common type (plain cups and one-handled bowls), in one of which was found a thin silver lid of 137 mill. diameter. Other vases, two heavy stone lids, and a bronze knife-blade were found on the upper step.

Retracing our steps, we leave on the right a small chamber (ii.) with vestibule, which contained a painted stamnos and a painted bowl, and enter the corner room (i.), which was one of the best preserved in the house. Its brick party walls rest on stone foundations, and were found covered with a bluish plaster, fallen fragments of which showed traces of a red leaf pattern. In its north-east angle was a small perfect *πιθος* and a large basin, and in all corners and in the centre were found broken vases to the number of a dozen, together with two bronze pins, and a mug in reddish marble.

Returning eastward, we pass by a step from room vi. to room vii. in the far corner of which were remains of a receptacle made of upright slabs, and of a number of vases, including two pseudamphorae of late type. Room viii. beyond this, which is sunk to 5' 3" below the general level, is stone built, has no door or pavement, and is evidently a cellar. The passage xiii. was found blocked

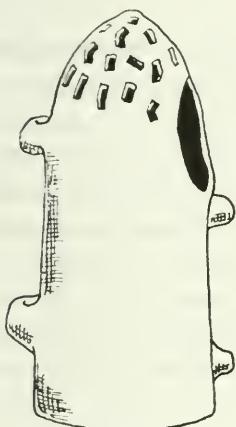


FIG. 51.—VASE FROM HOUSE I. ROOM XIV.

with common "rustic" vases to the number of 35, and pierced clay "weights." By this passage the open court (ix.) is again reached, and the circuit completed.

Here we have the most complete ground plan on the site, and a fair type of a house of the latest Mycenaean age. The painted ware found in it was uniformly of that period in decoration and form. Bronze occurred, but not a trace of iron. Its destruction marked the close of the Mycenaean period, and the abandonment of the town. No painted geometric ware occurs anywhere on the surface of the Kato Zakro basin. To find that one must go towards the upper valley.

### § 8.—BURIALS.

Tombs were sought in vain on all the slopes of the hills. My overseer, Gregori Antoniou of Larnaca, one of the most experienced tomb-finders in the Levant, was of opinion from the first that burial in chamber graves could never have been habitual here, since the limestone rock is uniformly of the most uncompromising hardness. In the event his view was justified, for the rock shows no sign of having been cut at any point, except in the quarry at Spílaio斯 Pelekitoú, two miles to northward on the seaward face of the cliff, from which the materials for the Zakro town doubtless came. Nor have the denuding influences of nature left sufficient earth to cover a corpse anywhere, but in the marshy delta of the river, a very unlikely place.

Where then did the folk of the earlier and later Zakro settlement lay their dead? Native tradition reported former discoveries of built cist-graves in rock recesses and caves of the Gorge, and I was conducted to two grottoes, now bare of earth, but still containing bones lying among rough slabs, evidently the ruins of such cists. Thereafter I had the caves systematically examined. Those visible from the lower plain proved all water swept, except one small recess high up on the north, and east of a much larger and more conspicuous grotto. This contained about a foot of earth from which several potsherds were collected, but no bones. These sherds were a surprise, for many of them belonged to early styles distinct from any found below. Together with parts of rough vases with white ornament on a black "Kamares" slip were three other kinds, (1) hand-polished brown-black neolithic, (2) ware of a blue grey clay with slip of the same, ornamented with very regular incised geometric schemes, (3) a yellow

ware bearing hatched ornament in brown lustreless paint, strongly recalling a fabric found in the primitive necropolis of Agia Paraskevē in Cyprus (Fig. 52, cf. middle vase first row). All this seems to date before the developed Kamares-Mycenaean pottery of the Pits.

Scanty remains of small terraced houses were found on the steep slope just below the cave, and before the mouth of the latter there were traces of a rectangular structure: but the few sherds recoverable from these houses were of later Mycenaean type.

A much larger cave, however, about three miles up the Gorge, threw some light. This lies high up on the left bank, not far below the point where the stream from Epáno Zakro first engages itself in the cañon. The cave was found to be choked with earth and animal droppings; and clearing a way in, we hit almost in the entrance on the disturbed remains of at least five burials, laid about two feet from the surface under a stratum of fine ash. The bodies had been laid on earth within cists rudely built of small stones, but only one of these retained its form. Its inner area measured 3' 10" x 2' 8", and it contained a well-preserved skeleton, laid on the left side, with knees drawn tightly up towards the chin, and arms extended at full length. A single vase in grey clay with incised geometric ornament lay with its mouth almost touching the mouth of the corpse (Fig. 52, middle vase of second row).

The other four burials, lying more towards the south of the passage, were a jumble of stones, skulls, vases and bones. From the confusion I recovered two skulls, two obsidian flakes, a bone object pierced with bronze nails which was perhaps a knife handle, twenty-three vases complete, or nearly so, a basket of fragments, and a pierced clay cube or "loom-weight." Of these vases, five are typical early *Schnabelkannen*, unpainted and hand-made; three are bowls in the incised grey-black ware noted in the lower cave; one large *Schnabelkanne* and a saucer are in the yellow ware with brown painted ornament, also found in the lower cave; one bowl, with small suspensory handle under the lip, is in a highly polished hand-made ware varying from bright red above to black at the base, very like a Cyprian fabric; five are jugs and bowls in plain hand-made buff ware; one cup shows neat white hatched ornament painted under the rim on the body clay: a second is of a typical Kamares shape with black slip; a third in the same ware has spout and rudimentary handles; and one small black polished bowl is strongly reminiscent of squat

suspensory neolithic bowls. They form a group whose relative date is clear (Fig. 52). The burials to which these vases belong must be placed in the beginning of the "Kamares" period, of whose typical pottery they embrace certain specimens; but they contain also elements not usually found on "Kamares" sites. The neolithic incised ware seems to have taken here a geometric development both in incision and in paint, without adopting the typical "Kamares" glaze. The impression conveyed by these vases is of native post-neolithic fabrics, with Kamares importations and influences appearing among them.

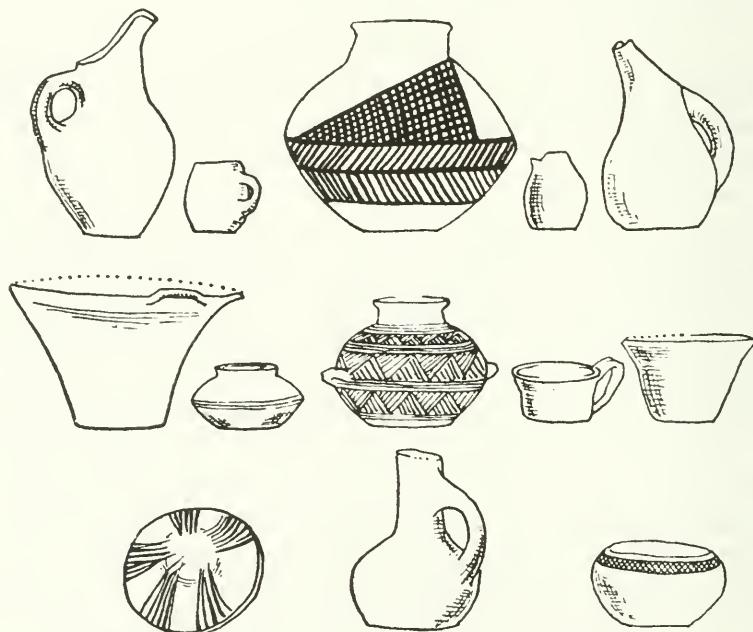


FIG. 52.—TYPICAL VASE FORMS FROM EARLY CAVE BURIALS.

Further exploration of this cave proved fruitless. It must have been blocked and the burials must have been disturbed at a very early period. Some fragments of painted Mycenaean ware occurred in its superficial earth.

It is plain, then, that cave burial was practised at the time of the early Kato Zakro settlement, and it is probable that the dead continued to be disposed of in superficial cists among the rocks of the numerous gorges

through the Mycenaean age. Such a practice, which in nine cases out of ten would expose the body and its grave furniture to the terrific denuding influences which act on Cretan soil, may be held to explain the extreme difficulty experienced hitherto in finding early cemeteries in the island. Probably for the most part they have absolutely ceased to exist.

Cave burial was certainly still in vogue in the post-Mycenaean Geometric period. A considerable site of that period exists at "Hellenika," (summarily described by Mariani, *I. c.*) about a quarter of a mile from the cave just described, down the course of the stream. Here are ruined houses built of small stones, disposed over a steep slope right in the heart of the gorge. This unusual situation, hot, beset with flies and remote from the arable lands, must have been chosen under pressure of great danger. The security which encouraged a settlement at Kato Zakro prevailed no longer. Just above this site is a small cave very difficult of access. Within it the rock has been cut to form a trench 6' × 4', where, along with disturbed human bones and remains of a cist, I found five painted vases of ordinary late geometric types, a large tripod cooking pot and parts of a necklace of blue Egyptian paste beads. Another half mile down the gorge are two caves high up on the right bank. In one of these was an immense collection of disturbed bones, with fragments of late geometric ware.

#### § 9.—KATO ZAKRO AS A WHOLE.

I have stated that above the floors of the houses at Kato Zakro no "Kamares" ware at all was found, but a few fragments occurred in three places under foundations. Nor did any specimens of that "Mycenaean" ware, so characteristic of the Pits, which continues *Kamares* schemes of ornament, occur in the lower town. In fact the pottery on the two hills is quite distinct. That on the lower hill is almost exclusively characterised by the inferior glaze and debased ornament which we associate with the late efforts of Mycenaean art in the Aegean; but with it were found a few rare examples of the finer wares, classed by Furtwängler and Löschke as the "third and fourth styles." These might well be survivals—heirlooms still in use, or preserved for show.

The seal impressions form a gallery of Mycenaean art of the good period. A few specimens show a premonition of the dry late style, but the majority are earlier. The finer specimens recall more than

anything else the art of Vaphio, while some types have intimate relation with the Acropolis graves at Mycenae, and still more intimate relations with types found in the Palace at Knossos.

However late in the Mycenaean Age we place the existing remains of the Lower Town of Zakro, *these were still anterior to the Age of Iron*. Not a trace of that metal occurred in or by the houses, while bronze was abundant, and obsidian flakes were also found. Nor were any fragments observed of distinctly geometric vases. Like the similar trading settlement on the Gulf of Mirabello, discovered at Gournia by Miss Harriet Boyd, most of what is left at Zakro seems to belong to an epoch towards the close of the Bronze Age. The fact that the remains at both sites come to a clean and abrupt finish with that epoch, showing no admixture of remains of the succeeding epoch, is in favour of those who hold that the use of iron and the inception of the geometric style resulted from some violent and radical social change in the Aegean, such as conquest by a distinct race. With that event, of whatever nature it was, population deserted the Zakro plain. The seafaring commerce, which had been the cause of its importance, was diverted elsewhere, or perhaps, as other evidence tends to show, it ceased altogether.

If it ended thus, *how did the Zakro settlement come into being?* The complete failure of the neolithic and earlier "Kamares" remains on the town site seems to indicate that civilisation did not develop from the most primitive period on the spot, as it did at Knossos, but was planted at Zakro ready made just before (or just at the opening of) the Mycenaean Age properly so-called. Potters with the tradition of the pre-Mycenaean style and potters equipped with the new style seem to have come in almost, if not quite, together. It is hardly going too far to see in this settlement a mixed colony compounded of pre-Mycenaean and newly-come "Mycenaean" elements of population, established at this remote spot to conduct trade with Libya. But *established whence and by whom?* To the solution of this question Mr. Bosanquet's negative evidence obtained at Praesos is pertinent. He found that both "Kamares" and "Mycenaean" pottery failed absolutely in the centre of the Eteocretan country. The result of my own researches in the Upper Zakro district showed that the same was true there. On leaving the coastal plains, whether at Zakro, Palaiókastro Petrá, or Gournia, one seems to leave the Pan-Aegean civilisation behind and to enter on the domain of a people whose development had been

independent, but whose rude native art came to be considerably influenced as time went on by the greater art of the "Mycenaean" coast settlements. Their native products seem to be represented, during the "Kamares" period, by the contents of the cist-graves which I found in the caves.

These graves (from which I obtained some skulls (*v. infra* p. 151)) appear to belong to a native race which was in communication with the Kamares and Mycenaean culture of the coast settlements, but to which that culture was foreign. This race, then, cannot be supposed to have founded those settlements, and the town at Lower Zakro must have owed its origin to colonists brought in ships, probably from mid-Crete. In short, it was in all likelihood an outlying trading station of the Minoan power at Knossos.

Its position indicates that Zakro traded with Libya direct, and not (as has been supposed) by a circuitous route through Rhodes and Cyprus. But in actual evidence of such trade the finds, made in the plain, are disappointing. One fragment of porcelain was the only Egyptian object turned up; a vase with moon and sun disk in relief on its side recalls Phoenicia; two others are probably of Cyprian fabric.

#### § 10.—REMAINS ABOUT EPÁNO ZAKRO.

The sites in the upper Zakro Valley, which I tested, are as follows:

(1) *Xerokambólina* lies at the foot of the subsidiary range, half-way between upper and lower Zakro. Very scanty traces remain of a village with painted sherds of late Mycenaean types.

(2) *Ambélis*, about two miles south of the above, overlooks the plain of Kato Zakro from the west. There are three groups of megalithic houses, near one of which is an ancient threshing floor. The potsherds found in my trial pits were Mycenaean, but there was not sufficient earth in any house to make it worth while to continue excavation. These houses are evidently farmsteads related to the small plain which now supports a metóchi. Not far from these lies another similar megalithic farmstead at *Chirómandres* ("Sirómadres", Evans, *Academy, l.c.*), on the path from upper Zakro to Xerokambos, one hour from the former.

(3) *Anthropolítés* ("Athropolitous," Evans, who includes under this name also No. 4), is a barren hill about a mile to the south of upper Zakro. Very faint traces of a late settlement are visible.

(4) *Tou Koukou to Kepháli* is a hill immediately south of the village of upper Zakro. This much denuded site has been of some importance and Mr. Evans, on his visit, thought well of it, but it proved on being probed to retain almost no earth. Terra-cotta animals and plaques with archaic "Apollo" reliefs, together with painted geometric ware, have been found here. My overseer picked up a geometric lentoid gem on the surface. The foundations of a considerable building in the smaller and regular megalithic style exist on the south-west slope of the hill, and on an opposite hill (*Vigles Skoulázas*) are similar remains of a building 50' × 54', too devoid of earth to be worth digging.

To eastward, across the river, I explored two cave-graves pertaining doubtless to this site. Both had been robbed of valuables, but one (A) still contained nearly 70 clay vases, a number of bronze fibulae with heavy embossed bows, and some bronze pins, beads in glass and incised clay, a good deal of iron, including a typical geometric sword-hilt, 3 stone vases, a steatite lid, and 3 clay whorls. The vases are of the types already rendered familiar by discoveries at Knossos and Kavúsi; the ornament is geometric with Mycenaean reminiscence. The tomb is rudely arched in the rock and is probably a natural recess about 6' × 6'; it showed no signs of shaping or levelling.

The second tomb (B), to left of this, had walls built outwards from the rock to form an oblong 5' × 3'. It contained some 15 vases, all but one in coarse gritty clay and unpainted. The exception was a small jug painted in red brown on a yellow slip. All the vases are of ordinary geometric types.

(5) The ground about the "Inner Mill" above the village is strewn with sherds of the same period, and finds of geometric gems are reported to have been made there.

(6) *S' tas Tavéras*, 1½ miles north of the village and close to the metóchi of Klisidi, lies a little to right of the direct path to Palaiokastro. This site was first seen by Halbherr and recommended for excavation. Mariani subsequently planned and described it very fully, but overestimated its importance. The actual remains consist of foundations of a village, containing one house or farm of unusual size, which measures 63' 7" × 64' 9". Its outer walls are constructed in well squared blocks. Unfortunately this structure is denuded internally to its foundation clay, and the only evidences of its period that I could recover were a small

plain wheel-made cup, and part of a *πιθος* with incised ornament, more probably post-Mycenaean than earlier, and two bits of much perished painted ware, apparently also of the Geometric period.

A similar megalithic farmstead exists about one mile to S.E. of the last named, partly inside partly outside a modern inclosure known as *Skaphe Vakliás*. It is on the direct road leading from Kato Zakro, by the left bank of the Gorge, to Azokéramo. This farm is also denuded to its foundations, but in style of construction is one with *S' tas Tavernas* and the remains on and near *Tou Koukou to Kepháli*.

## SKULLS FROM CAVE BURIALS AT ZAKRO.

By W. BOYD DAWKINS.

### I.—DESCRIPTION.

THE human remains discovered by Mr. Hogarth in the caves of the Zakro Gorge, and sent to me for identification, consist of three skulls of adults and a fragment of an upper maxillary of a child. The skulls present the following characters. All are well developed, with highly complicated sutures, and wormean bones in the parieto-occipital suture, with thin cranial walls, and without the strong muscular impressions and ridges, usually met with in prehistoric skulls, and present in all living uncivilised peoples.

Skull No. 1, figured in the Plate, lay in the only untouched cist found by Mr. Hogarth in the caves (*v. supra*, p. 143), together with the incised vase shown in the middle of the second row in Fig. 52. From its delicacy it is probably that of a woman. The forehead is well developed, with insignificant glabella, and slight supraciliary ridges (A). The inter-orbital region is flat and broad. The orbits, as may be seen from Table I., are mesoseme and rounded-rectangular, and droop outwardly. The vertical profile of the nasals is slightly concave, and the nasal aperture is leptorhine-mesorhine, the index being .480 on the line of division between the two groups.<sup>1</sup> The alveolar index of .900 proves that the lower portion of the face was orthognathous, or 80 below the highest figure in the division. The alveolar border is slightly concave in the median line, with slightly projecting incisors. The outline of the palate is parabolic, and the two last molars are gone, leaving a bare filled up space. The regular outline of the skull, with its sides gradually narrowing from back to front, is clearly shown in C, as well as the flattening of the parietals behind the fronto-parietal suture. This flattening may be due to the pressure of a handkerchief worn over the head while the skull was growing.

<sup>1</sup> Flower, *Osteological Catalogue of Mus. Coll. Surg. Lond.*, Part 1, 1879, p. 252.

Plate VI.

A.



B.



C.



D.



SKULLS FROM UNTouched CIST AT ZAKRO.

[Plate p. 150.]



The antero-posterior curve (B) is flattened in the posterior region of the frontals and the anterior region of the parietals. It then sweeps in a bold curve over the occipitals to the basion. The transverse arc (D) is flatly pointed close behind the fronto-parietal suture.

The cranial or breadth index of .752 proves that this skull belongs to the long or dolichocephalic as it passes into the oval type. Passing over skull No. 2, which is too fragmentary and decomposed for purposes of comparison, skull No. 3, adult, and probably male, repeats the principal characters of No. 1. It is long, orthognathous, and leptorhine. It has, however, thicker cranial walls, and stronger muscular impressions, the glabella and the supraciliary ridges being strongly marked. It is also slightly longer, the cranial index being .740. The nasals are convexo-concave in profile, and the lower portion of the nasal cavity is round. The outline of the palate is parabolic. The lower jaw belonging to this skull implies square chin, and the nasio-mental height is 105 mm.

These three skulls obviously belong to the long-headed section of the ancient inhabitants of Crete, and they all bear the marks of civilisation in the absence of strong muscular ridges and impressions, and in the small size of the teeth. The lower jaw of No. 3 skull bears marks of an abscess. It is remarkable for the small size of the canines, for the gap in the alveolar border occupied by the second true molar which had been lost, and for the decay of the last molar—or “wisdom tooth.” All these characters point unmistakably to the fact that the possessors of the skulls had left the feral condition of humanity behind, and led the artificial life of highly civilised peoples.

## 2.—COMPARISON WITH OTHER ANCIENT MEDITERRANEAN CRANIA.

If these skulls be compared with those described by Virchow, Garson, and others, from various localities in the Mediterranean region, it will be seen that they fall naturally into line with the long skulls of Greek and pre-Greek peoples, in Asia Minor, in Attica, and in Italy. In the first Table I have given the measurements of the three skulls from the Cretan tombs, side by side with those from Hissarlik, Menidi, and Cumae. I have added also those described by Virchow from the mound of Hanai Tepeh, in the Troad.

TABLE I.—SKULL MEASUREMENTS.

Cists near Zakkio, Crete.		Hissarlik 1						Hanai Tepeh. <sup>1</sup>							
		B.M.			M.F.			B.F.			M.F.				
I F.Y.	II F.Y.	III M.Y.	1 M	2 M	3 M	4 M	5 F	6 M	7 M	8 M	9 M	10 M	11 M	12 M	13 M
1 Maximum length . . . . .	178	—	189	195	191	188	187	188	185	188	186	187	186	188	188
2 Maximum breadth . . . . .	134	135	140	132	142	134?	137	139	138	137	132	144	139	144	141
3 Minimum frontal width . . . . .	92	104	90	90	99	—	99	91	95	89	93	94	95	92	95
4 Basio-bregmatic height . . . . .	123	—	—	—	—	—	130	129	—	—	—	—	—	—	—
5 Horizontal circumference . . . . .	504	—	—	521	537	505	512	525	492	—	510	—	508	525	518
6 Antero-posterior curve (ba- sion to nasion) . . . . .	366	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A Frontal arc . . . . .	126	—	—	130	—	—	—	367	—	—	—	—	—	—	—
B Parietal arc . . . . .	114	—	—	120	—	—	—	—	125	—	—	—	—	—	—
C Occipital arc . . . . .	126	—	—	—	—	—	—	—	122	—	—	—	—	—	—
7 Basion to nasion . . . . .	98	—	—	—	—	—	—	—	102	105	—	—	107	—	93
8 Basion to alveolar point . . . . .	88	—	—	—	—	—	—	—	—	102	—	—	94	—	91
9 Bizygomatic breadth . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 Bigonial breadth . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11 Nasio-mental length . . . . .	—	—	—	—	—	—	63	—	—	—	—	—	69	—	75
12 Nasion to alveolar point . . . . .	60	—	—	—	—	—	46	49?	49	59	53	—	—	—	64
13 Nasal height . . . . .	50	—	—	—	—	—	22	23.5	25?	25	25	—	—	—	48
14 Nasal breadth . . . . .	24	—	—	—	—	—	39	—	41	37	40	—	—	—	24?
15 Orbital length . . . . .	—	—	—	—	—	—	31	—	33	35	—	35?	—	—	25
16 Orbital breadth . . . . .	34	—	—	34	—	—	—	—	—	—	—	—	—	—	34
Cranial or Breadth-index . . . . .	752	—	740	676	745	713	733	739	715	733	755	780	725	748	750
Height-index . . . . .	691	—	—	—	—	—	695	688	—	971	—	723	740	702	776
Alveolar-index . . . . .	900	—	981	—	—	—	—	—	—	—	875	—	875	—	790
Nasal-index . . . . .	480	—	478	479	510	—	—	—	—	423	472	—	—	—	945
Orbital-index . . . . .	871	—	815	—	769	—	—	—	—	804	867	—	—	—	892

[1] Virchow *Astroitische Gräber und Schädel* Akad. Wiss. Berl. 1882, Bd. 130-133.

<sup>2</sup> Virchow, *Kön. Akad. Wiss. Berl.* 1893.

<sup>3</sup> GRISSON, *Zourn. Hell.* Stud. v. p. 59.

In No. 1 skull these measurements are 102 and 100, which give an alveolar index of .991.

The skulls from Hissarlik were obtained from the "third city." The skull from Menidi, near Athens, was obtained from a domed grave, of well defined Mykenaeon age,<sup>1</sup> while that from Cumae<sup>2</sup> is ancient Greek. The skulls from these localities form one well defined group, with a cranial index ranging from .676 to .752. In the Cretan skulls, Nos. I and III, the alveolar index is .900 and .981, and in that of Cumae .971. They are therefore orthognathous. All with one exception, No. 3 from Hissarlik, which has a nasal index of .510, are leptorhine. The orbital index ranges from .804 to .871, the Cretan skulls and that from Cumae being mesoseme, and those from Hissarlik and Menidi microseme.

The skulls from Hanai Tepeh are derived from a Greek settlement,<sup>3</sup> ranging over a considerable period and as late as the fifth century A.D., are of uncertain age, and are, as may be seen from the Table, partly long (dolichocephalic) and partly round (brachycephalic). They present a series of changes which are obviously the result of the fusion of the long-headed with the round-headed peoples.

In the preceding Table the measurements of two long skulls from the third city of Hissarlik have been given. A skull described by Virchow, found by Schliemann, in the second city (see Table II.), proves the presence of the round-headed race in the Troad, either before or at the time when the Achaeans were attacking the city. It has a cranial index of .825, and is prognathous, contrasting in these two important characters with the long skulls of Table I. It stands in close relation to the group of skulls of Table II., from the mainland of Greece and the Aegean area, which are characterised by their tendency towards roundness, their cranial indices being centered round, and being mostly above, .800.

All the skulls in the above Table belong to the Mykenaeon or to the first stage of the succeeding period. Those from Nauplia (Ridgeway, *op. cit.* p. 23) are associated with articles similar to those found in Mykenae; that from Spata was obtained from a domed tomb of the type of "the treasury of Atreus" (Ridgeway, *op. cit.* p. 30). To this age also belongs the skull from the cemetery of Antiparos, discovered by Theodore Bent (*Journ. Hell. Stud.* v. p. 48). Those from the Dipylon graves, near Athens, are proved by the pottery to be of post-Mykenaeon age (Schuchhardt, *op. cit.* p. 129).

<sup>1</sup> Schuchhardt, *Schliemann's Excavations*, pp. 147, 151. Ridgeway, *Early Age of Greece*, vol. i. p. 30.

<sup>2</sup> Garson, *Journ. Hell. Stud.* vol. v. p. 58.

<sup>3</sup> Schuchhardt, *op. cit.* p. 87.

The skull from Mykenae is unfortunately too fragmentary to allow Virchow to accurately define its breadth. It is probably a round skull.

TABLE II.—MEASUREMENTS OF SKULLS.

	Hisarlik, <sup>1</sup>		Mykenae, <sup>2</sup>		Nauplia, <sup>2</sup>		Nauplia, <sup>2</sup>		Sparta, <sup>2</sup>		Antiparos, <sup>3</sup>		Dipylon, <sup>2</sup>		Dipylon, <sup>2</sup>		Dipylon, <sup>2</sup>	
	—	M	—	F	—	F	—	M	—	M	—	F	—	F	—	F	—	M
Length . . . . .	180·5	194·5	170	174	178	178	174	174	173	173	170	170	170	170	170	170	170	170
Breadth . . . . .	149	157 <sup>2</sup>	135	138	144	144	144	143	150	143	150	133	133	133	133	133	133	133
Height . . . . .	—	—	—	—	—	—	—	—	—	—	—	127	126	125	125	125	125	125
Circumference . . . . .	522	—	495	500	510	510	499	513	485	513	485	—	—	—	—	—	—	—
Basion to nasion . . . . .	522	—	495	500	510	510	499	513	485	513	485	—	—	—	—	—	—	—
Basion to alveolar point . . . . .	—	—	94	95	95	95	101	98	97	98	97	—	—	—	—	—	—	—
Nasal length . . . . .	—	48 <sup>2</sup>	—	47·5	48	47	51	56	56	56	56	—	—	—	—	—	—	—
Nasal breadth . . . . .	—	23	—	24	26	23	26	25·5	26	26	26	—	—	—	—	—	—	—
Orbital length . . . . .	—	38	—	39	—	41·5	39	41·5	43	43	43	—	—	—	—	—	—	—
Orbital breadth . . . . .	—	28·5	—	34	35	33	33	40	39	39	40	—	—	—	—	—	—	—
Cranial or Breadth-index . . . . .	—	825	—	807 <sup>2</sup>	794	793	809	809	822	822	867	782	782	782	782	782	782	782
Height-index . . . . .	—	—	—	—	770	730	702	792	730	730	728	735	735	735	735	735	735	735
Alveolar-index . . . . .	—	—	—	—	978	910	957	871	—	—	—	—	—	—	—	—	—	—
Nasal-index . . . . .	—	485	—	505	552	489	510	455	464	464	464	556	556	556	556	556	556	556
Orbital-index . . . . .	—	750	—	871	—	793	846	963	906	906	906	789	789	789	789	789	789	789

## 3.—GENERAL CONCLUSIONS.

From the examination of these Tables it is clear that during the Mykenaean age, leaving Crete out of account, the long-headed and round-headed races were living side by side in Greece, in the Troad, and in the Aegaean area.

We must now consider the further difficult question of the relative antiquity of these two races in the region of the eastern Mediterranean. Direct evidence is unfortunately wanting in the area under consideration, and the only answer possible in the present state of our knowledge is based upon the sequence of the two races in the western Mediterranean, and in middle and southern Europe. The researches of Sergi, and others, have

<sup>1</sup> Virchow, *Alttröische Gräber und Schädel. Abh. Kön. Akad. Wissen. Berl.* 1882, pp. 130-33.

<sup>2</sup> Virchow, *Ueber Griechische Schädel aus alter und neuer Zeit, Sitzungsber. Kön. Akad. Wissen. Berl.* 1893, pp. 696-99.

<sup>3</sup> Garson, *Journ. Hell. Stud.* v. p. 59.

proved that the earliest population of Italy, in the Neolithic Age, was long-headed, and that a round-headed people made its appearance at a later time, and not later than the beginning of the age of bronze. In Spain, France, and the British Isles, the same sequence is to be seen, the Mediterranean race of Sergi being represented by the Iberic race of the English and French craniologists, and the "Alpine race" of Sergi being the equivalent of the round-headed Celtic peoples of Spain, France, and Britain. These names relate to mere geographical varieties of two great aboriginal races, which occupied the whole of north-western Europe and the western Mediterranean, in the Neolithic and Bronze Ages. It is very probable that this sequence also holds good in the eastern Mediterranean. I therefore feel inclined to follow Ripley in believing that the aboriginal race in the Mediterranean, both east and west, was long-headed, and that it was invaded, in the Bronze Age, by the round-headed peoples.<sup>1</sup>

If this view be accepted, the skulls found by Mr. Hogarth in Crete belong to the small dark Mediterranean people,<sup>2</sup> the oldest, if not the only, ethnical element in the Pelasgians of Crete, whose swarthy complexions and dark hair are so vividly depicted in the frescoes of the great Palace-temple of Knossos, now being explored by Dr. A. J. Evans.<sup>3</sup> It would be rash, without better evidence than we have at present, to enter into the further question as to the identity of the round heads in the eastern Mediterranean with the Celts, or as to the ethnic relations of the fair-haired Achaeans to the Celtic or Teutonic peoples.

<sup>1</sup> Ripley, *The Races of Europe*, pp. 117, 404-10.

<sup>2</sup> [This conclusion is also reached by Prof. Sergi on the evidence of Skulls from Erganos in Crete in the *American Journal of Archaeology*, 2nd Series, v. 3, p. 315.—ED.]

<sup>3</sup> In his opinion, however, the head of the youth in the fresco is brachycephalic, and of the same shape as those of some of the present inhabitants of Crete, Letter 7, I. 1902.

## AN ATHENIAN DECREE.

BY ADOLF WILHELM.

AMONG the objects in the Finlay Collection, which recently passed into the possession of the British School at Athens, is the inscription published by Ulrich Koehler first (*C.I.A.* ii. 410) from the defective copy of Pittakis (*L'ancienne Athènes*, p. 494) and afterwards from a copy made by himself, *C.I.A.* iv, 2 p. 109, 410. It is written *στοιχηδόν* in large letters on the lower part of a slab measuring 0·475 m. in height, 0·525 m. in width, 0·12 m. in thickness and runs as follows :

. . . . . *ιασ. ισι* . . . . .  
. . . ειλαν τέλεσ[ι τ]οῖς . . .  
. . δοῦναι δὲ αὐτῷ καὶ σί-  
τησιν ἐμ πρυτανείωι καὶ πρ-  
5 οεδρίαν ἐν ἀπᾶσι τοῖς ἀγῶ-  
σιν τοῖς τῆς πόλεως καὶ ἐκ-  
γόνων τῶι πρεσβυτάτῳ: ἔξει-  
ναι δὲ αὐτῷ καὶ εἰκόνα στ-  
ῆσαι ἑαυτοῦ χαλκῆν. ἐφ' ὕππ-  
10 ου ἐν ἀγορᾷ δπου ἀμ βούλη-  
ται πλὴν παρ' Ἀρμόδιον καὶ  
'Αριστογείτονα.

The lettering fixes the date to the second half of the fourth century B.C.

There are two decrees of this period which offer some similarity of phrase :

*C.I.A.* II. 193, l. 15 ff.

*καὶ πολλοὺς Ἀθηναίων λ[υτρωσά-  
μενος ἐκ Κρήτης ἀπέστ[ειλεν τοῖς ἐ-  
αυτοῦ ἀναλώμασιν καὶ [παραίτιος ἐ-  
γένετο τοῦ σωθῆναι εἰ[ς τὴν ἴδιαν*

II. 194, l. 6 ff.

[καὶ νῦν

τῆς μάχης τῆς ἐν Ἑλλη[σπόντωι γεν-  
ομένης π]ολλοὺς διέσ[ωισε καὶ λυτρ-  
ωσάμενο]ς ἀπέστειλε[ν καὶ αἴτιος  
ἐγένετο] τ]οῦ σωθῆναι[ τοῖς αὐτοῦ ἀ-  
ναλώμασι]

and in accordance with these, the first two lines of our inscription may be restored in this way :

. . . . -ας εἰς τὴν ἴδιαν ἀπ-  
έστ]ειλαν τέλεσ[ι τ]οῖς αὐτ-  
ῶν ?].

The words *εἰς τὴν ἴδιαν* are too short by one letter to fill the gap, but *εἰς* may possibly have been written with two sigmas, the doubling of sigma before tau being not unusual. *Εἰς τὴν οἰκείαν* would also be possible, but has one letter too many. However in restoring even carefully written *στοιχηδόν* inscriptions we must allow for irregularities ; in particular iota is often inserted between two letters. The first word may be *τοὺς ἀλόντας*. This is of course mere conjecture, and aims only at giving some meaning to the mutilated remains. It is to be noted that the verb is in the plural, whereas further on only one recipient of the honours is mentioned. Hence this phrase refers either not to him alone or to other persons altogether. Consequently it remains an open question whether *τοῖς αὐτοῦ* or *τοῖς αὐτῶν* should be read ; the space does not admit of *έαυτοῦ* or *έαυτῶν* as in line 9.

Whatever the true restoration of the sentence may be, it is certain that it gave the reasons for the decree. Apparently, a full statement of the reasons came after the first sentence decreeing honour, a rather unusual form, for, as is well-known, the proposal generally begins with the statement of reasons introduced by *ἐπειδή*.

The lost first sentence which decreed honours is continued by *δοῦναι δὲ αὐτῷ καὶ σίτησιν κ.τ.λ.* : the person in question is further granted maintenance in the prytaneion and a place of honour in all the public games and performances together with the permission to erect an equestrian statue in the market place wherever he liked except beside the statues of Harmodios and Aristogeiton. We find the same limitation in the decree

*C.I.A.* II. 300 in the honour of Herodorus 295/4 B.C.: *στήσαι δ' αὐτοῦ τὸν δῆμον καὶ εἰκόνα χαλκῆν ἐν ἀγορᾷ πλὴν παρ' Ἀρμόδιον καὶ Ἀριστογείτονα καὶ τὸν Σωτῆρας.* And Brutus and Cassius the murderers of Caesar were honoured by statues near the *τυραννοκτόνοι* as Dio Cassius XLVI 20, 4 tells: *καὶ αὐτὸν οἱ Ἀθηναῖοι λαμπρῶς ὑπέδεξαντο· ἐτιμώντο μὲν γὰρ καὶ ὑπὸ τῶν ἄλλων σχεδόν τε πάντων ἐφ' οἷς ἐποίησαν, ἐκεῖνοι δὲ καὶ εἰκόνας σφισι χαλκᾶς παρί τε τοῦ Ἀρμοδίου καὶ παρὰ τὴν τοῦ Ἀριστογείτονος ὡς καὶ ξηλωτᾶς αὐτῶν γενομένοις ἐψηφίσαντο.*

Apparently the statue in question was to be erected not by the Athenians, but by the man himself. Since the statue is to be an equestrian one, we must suppose him to have been of princely rank or at least in a high military position. In all probability, he was in Athens at the date of the decree, and applied in person for the permission to erect his own statue.

Finally, it is to be noted that there is no provision for the publication of the decree, a circumstance which suggests that our inscription was not a copy made under the supervision of the secretary and at the expense of the state, but was ordered and paid for by the subject of the decree. The large size of the stele and the letters would agree with this hypothesis. The two steles with the decree of the Athenians in honour of the king Arybbas and the king Audoleon (*C.I.A.* ii, 115 and 312) are on a similar scale. The inscription was perhaps set up beside the equestrian statue in the market place. The place where it was found is however unknown.

Only from the discovery of other fragments of the stele can we hope to learn the name of the man in question. Such a fragment would have to conform to certain requirements both as to form and as to content. It must be a piece of Pentelic marble forming the upper part of a stele. The inscription must be in large letters, twenty-one to the line, and in the character of the second half of the fourth century B.C. The decree must refer to a person of princely rank or exalted military position, who was in Athens at the time when the decree was passed and the copy must not have been made by the order of the state.

All these conditions are fulfilled by the large fragment of a decree of the Athenians, dating from the year of the archon Nikodoros 314/3 B.C. now in the British Museum and published by Boeckh in *C.I.G.* 105, by Newton in the Greek inscriptions in the British Museum xiv, by U. Koehler *C.I.A.* ii, 234 and by W. Dittenberger *Sylloge*<sup>2</sup> 166.

This inscription is on the upper part of a stele of Pentelic marble measuring 0·525 in width; the height is 0·648

Ἐπὶ Νικοδώρου ἄρχοντος  
 ἐπὶ τῆς Κεκροπίδος ἔκτη-  
 σ πρυτανείας Γαμηλιῶνος  
 ἐνδεκάτῃ ἔκτῃ καὶ εἰκο-  
 5 στῇ τῆς πρυτανείας ἔκκλη-  
 σίᾳ· τῷ προέδρῳ ἐπεψήφι-  
 ζεν Ἀριστοκράτης Ἀριστο-  
 δήμου Οίν(αῖος) καὶ συμπρόεδρο-  
 ι· Θρασυκλῆς Ναυσικράτου-  
 10 ος Θριάσιος εἰπεν· δεδόχθαι τ-  
 ωι δῆμωι Ἀσανδρον Ἀγάθων-  
 ος Μακεδόνα ἐπαινέσαι ὅτ-  
 ι ἐστιν ἀνὴρ ἀγαθὸς ἴδιαι  
 τε περὶ Ἀθηναίους τοὺς ἀφ-  
 15 ικνονμένους εἰς τὴν χώρα-  
 ν τὴν ἑαυτοῦ καὶ κοινῆι περ-  
 Ἡ τὸν δῆμον τὸν Ἀθηναίων κ-  
 αὶ παραγενόμενος εἰς τὴν  
 πόλιν τάς τε ναῦς τὰς ἴδια-  
 20 ος καὶ τοὺς στρατιώτας παρ-  
 ἔχεται Ἀ]θ[ηνα]ίοις εἰς τὰς χ-  
 [ρείας . . . . . . . . . . .]

This Asandros is a general who is frequently mentioned in connexion with the complications of the earlier period of the Diadochi. His father is identified by Dittenberger with Agathon, appointed governor of Babylon by Alexandros the Great in 331/0 B.C., according to Diodoros xvii 64, 5 and Curtius Rufus v. 1. An older Asandros, mentioned by Arrian i. 17, 7, iv. 7, 2 as son of Philotas, and the well known Parmenion, also son of Philotas, were likewise his uncles. He was satrap of Caria during the years from 323 to 313. He had come to Athens and placed his ships and troops at the disposal of the Athenians who at that time were under the rule of Demetrios of Phaleron, in order to facilitate certain military enterprises; according to Droysen, *Geschichte des Hellenismus* ii. p. 25, 1, the expedition

related by Diodoros xix. 68, 3 under the archon Nikodoros against Lemnos.

So much for the person concerned : further details about Asandros are to be found in J. Kaerst's article in Pauly-Wissowa's *Realencyclopaedie* ii. p. 1517 and P. Haussoullier's study on the Seleucides and the temple of Apollo at Didyma *Revue de philologie* 1900, p. 259.

As for the form of the decree, we see that it does not begin with a statement of the reasons assigned, in a clause of greater or less length introduced by *ἐπειδή*. The laudation comes first and a full statement of the reason follows. Further, Wilhelm von Hartel has put forward the suggestion (*Studien über attisches Staatsrecht und Urkundenwesen* 1878, p. 40, 54), that this is not an official copy of the decree, but one made by the order of the recipient of the honours. He was led to this conclusion by the absence of the name of the secretary and of the formula *ἔδοξεν τῇ βουλῇ καὶ τῷ δῆμῳ* or *ἔδοξεν τῷ δῆμῳ* and also by the use of an abbreviation.

As to the form of the stone, it is the upper part of a stele of Pentelic marble and agrees in its measurements with i. 410.

The writing is *στοιχηδόν* with the exception of the first line, in which the letters are irregularly placed so that at the end some space is left free ; see my remark in *Göttingische gelehrte Anzeigen* 1898, p. 206. In the other lines, we have regularly twenty-one letters ; slight divergences occur only in lines 5, 16, and in the beginning of l. 21 if we are right in restoring *παρέχεται*.

All these reasons suggested the hypothesis that the two fragments belong to the same stele. A glance at the accompanying reproduction, (Fig. 53) for which I am indebted to the kind offices of Mr. Cecil Smith and Mr. R. C. Bosanquet, is sufficient to establish it. The two stones show exactly the same kind of damage in corresponding places and a line of fracture in the left half of the stele is continued from the one stone to the other. These facts demonstrate the connexion of the two fragments which by a curious accident are both in British possession, the one in the British Museum, the other in Athens in the collection of the British School.

Unfortunately, we learn nothing new from putting the two fragments together. It is to be highly regretted that the most interesting lines, those which set forth the reasons of the decree, are lost. How much is missing, I am not able to say, unless it is possible by measurement of the width of the stele at the top and at the bottom to calculate what the

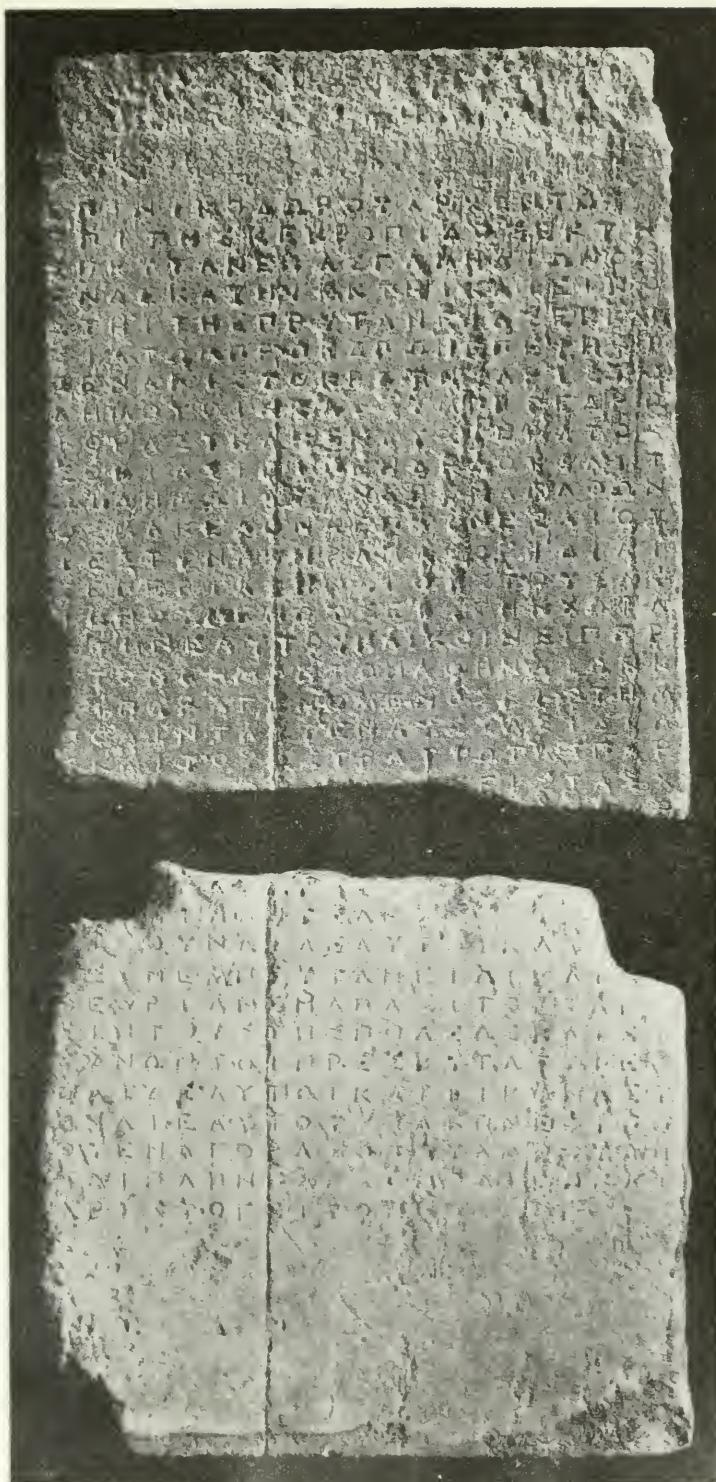


FIG. 53

original height must have been. I am inclined to believe that a portion is missing, because, generally speaking, the measurement of large Greek stelai can be expressed in a round number of Greek feet or rational fractions of a foot. Instances are to be found in a forthcoming article concerning a new fragment of the well known Eleusinian decree *C.I.A.* iv. p. 59, 27b.

The width being somewhat more than a Greek πῆχυς the height seems to have been at least three Greek feet. Now the two fragments measure only 1·123 in height.

Consequently the restoration of the first two lines of the lower fragments remains uncertain, as does also their grammatical connexion with the preceding clause. It is possible that the plural ἀπέστειλαν refers to Asandros and his brother Agathon, mentioned by Diodoros xix, 75, 2; but this is no more than a possibility.

On the other hand, we get a confirmation, the more welcome, because such coincidences are rare, of v. Hartel's hypothesis, that *C.I.A.* ii. 234 is an unofficial copy, in the fact that in ii, 410 there is no clause ordering publication.

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[Owing to the Author's proof not having come to hand in time, this article had to go to press with editorial corrections only.]

## ANNUAL MEETING OF SUBSCRIBERS.

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THE Annual Meeting of Subscribers to the BRITISH SCHOOL AT ATHENS was held in the rooms of the Society of Antiquaries, Burlington House, on October 24th, 1901, SIR RICHARD JEBB, Litt.D., D.C.L., LL.D. (Regius Professor of Greek, and M.P. for Cambridge University) in the Chair. The following Report was read by the Acting Hon. Secretary (Mr. R. J. G. MAYOR) on behalf of the Managing Committee :—

THE Committee are very glad to announce that within the last few months HIS MAJESTY THE KING, who as Prince of Wales had from the first taken a warm interest in the British School at Athens and given it his hearty support, has been graciously pleased to signify his continued desire for its welfare by becoming its Patron.

The work of the School, both on its teaching and on its exploring sides, has been energetically carried on during the past session under the newly appointed Director, Mr. Carr Bosanquet. The number of students in residence was five, as compared with six in the previous session. One of these, Mr. J. H. Marshall, Scholar of King's College, Cambridge, had been already admitted for the session 1898–99, and came out now with the Prendergast Travelling Studentship; and a second, Mr. J. H. Hopkinson, Scholar of University College, Oxford, had been already admitted for the session 1899–1900, and came out again for a second session as Craven Fellow of the University of Oxford. The three newly admitted students were Mr. K. T. Frost, of Brasenose College, Oxford, who held the Studentship offered by the Managing Committee to the University of Oxford; Mr. R. D. Wells, of Trinity College, Cambridge, who was appointed by the Committee to the Architectural Studentship on the recommendation of the President of the Royal Institute of British Architects: and Mr. J. ff. Baker-Penoyre, of Keble College, Oxford.

Mr. Marshall, who reached Greece in November, spent December and January in the Museums at Athens and at Candia, working out a comparison of the Mycenaean remains from Crete and the mainland. In the course of this study he made most successful restorations of the unpublished vases from the Vapheio tomb and of some vases from a newly found grave at Mycenae, which were entrusted to

him for this purpose by Dr. Tsountas. Subsequently he travelled for some weeks in Eastern Crete and took part in the School excavations at Praesos during May, June, and July.

Mr. Hopkinson, who reached Greece at the beginning of December, spent most of his time in work upon the vase collections in the Athenian Museums, devoting particular attention to the unpublished fragments from the Acropolis excavations. He also spent three weeks in Crete, partly at the Museum in Candia and partly in the neighbourhood of Knossos; visited sites on the western coast of Asia Minor, and worked for a fortnight at Mykonos on the unpublished vase fragments from the excavations in Anti-Delos. Since his return to England Mr. Hopkinson has been appointed to the post of Lecturer on Greek in the University of Birmingham.

Mr. Frost received the School Studentship on condition that he should spend three months in Germany, to learn the German language and work in Museums, and three months in Greece. He accordingly studied in Berlin from December to March, and afterwards came out to Greece for four months, most of which he spent at Athens at work in the museums. The subject to which he gave special attention was Greek athletics and the athletic schools of sculpture.

Mr. Wells reached Greece in March, spent a month in Athens, and then went on to Crete, where he remained till July, making surveys of sites excavated by the School at Praesos and Petras, and of the Mycenaean site at Kato Zakro, where Mr. Hogarth was digging. The work included both the mapping of very irregular broken country and the plotting of architectural remains, and the Committee think themselves fortunate in having secured the services of Mr. Wells for the purpose, since his previous experience with Mr. Somers Clark in Egypt gave him special qualifications for this difficult task.

Mr. Baker-Penoyre was in Greece from the end of March to July, during which time he travelled in various parts of the country, and worked in the Athenian Museums, paying special attention to sculpture.

The new Director, Mr. Bosanquet, reached Athens at the end of October and returned to England at the end of August, thus residing altogether ten months in Greece, of which about six months were spent at Athens and about four in Crete. Mr. Bosanquet has marked the beginning of his term of office by submitting to the Committee some valuable suggestions for the guidance of students at the School, which will, it is hoped, help to increase its usefulness as a teaching institution. These suggestions were printed in the last number of the Annual and are at the disposal of intending Students on application to the Secretary.

Excavations were undertaken this year by the School at Praesos, situated on the central plateau of Crete, and at Petras on the coast a few miles to the north. The work was conducted by the Director with the assistance of Mr. Marshall and Mr. Wells. Praesos was in historic times the chief centre of the Eteo-cretans, who represented the most primitive element in the population of ancient Crete, and it was therefore hoped that the excavations here might bring to light traces of civilisation of the Mycenaean epoch, together with inscriptions in the non-Hellenic and presumably Eteo-cretan language, of which one specimen had previously been

found in this neighbourhood. The first hope was not fulfilled, for on the site of Praesos itself only one product of Mycenaean art was discovered, a gem found embedded in the mortar of a late Greek house, into which it must have been accidentally brought with the earth from some neighbouring tomb when the house was built. About a mile away, however, a large house of late Mycenaean work was discovered in a valley near a spring, and somewhat nearer the city were found two tombs of the same period, one a square chamber with a dromos, and the other a well built bee-hive tomb. In the same neighbourhood a number of later tombs were opened, ranging from the Geometric period to the fourth century and containing a large quantity of vases of various periods.

Praesos itself appears from the remains discovered to have been an important place from the eighth or seventh century downwards. The most interesting objects were brought to light in a *temenos* on the top of a crag near the town. Here Mr. Bosanquet was fortunate enough to discover an inscription seventeen lines long in the non-Hellenic language referred to above and written in Greek characters of the fifth century, b.c. In the same place were found a series of votive offerings in bronze and terra cotta. The terra cottas, which range from the sixth to the fourth century, reveal the existence of a vigorous native school of art, and include the upper part of a fine archaic statue of a young god, half life-size, and a well preserved head with fragments of the body of a couchant lion. The remains of three other sanctuaries were also investigated. On a saddle below the Acropolis was discovered a large and solidly constructed building of late Greek workmanship, with a front seventy-five feet long, which may, it is suggested, have been an "Andreion" of the kind in which the Cretan citizens met for common meals.

The excavations at Petras on the sea-coast brought to light considerable quantities of pottery of the Mycenaean period. The site appears, however, to have been systematically turned over and terraced by its owners a few years ago, and it was therefore not thought worth while to undertake here work on a large scale. Accounts of the discoveries at Praesos and Petras will be published in the forthcoming number of the Annual.

Supporters of the British School will be interested to hear of the work that has been done in the other parts of Crete during the past season by the Cretan Exploration Fund. At Knossos Mr. Arthur Evans, an Associate of the School, assisted by two former students, Dr. Mackenzie and Mr. Fyfe, has continued the excavation of the great prehistoric palace which has been associated with the legends of Minos and the Labyrinth. The whole northern end of the palace and an extensive eastern quarter have been uncovered during the past year. Shortly before the close of the season a triple flight of stone stairs was brought to light, leading down from an upper corridor to a suite of halls, showing remains of colonnades and galleries. As it appears that the principal state-rooms were situated on this lower level, it is possible that the results of next season's work may surpass in interest even those which have already been obtained. Mr. Hogarth, the late Director, has also been enabled by a grant from the Cretan Exploration Fund to explore an ancient site at Zakro, in the extreme east of the island. He

has there laid bare a small Mycenaean town with well preserved remains of the lower part of the houses and magazines, and has discovered some fine examples of early pottery and an interesting deposit of clay impressions of Mycenaean gems and signets, including 150 different types. Mr. Hogarth was assisted by Mr. Wells in mapping, and by Mr. Marshall in classifying pottery. Through the kindness of Mr. Evans and Mr. Hogarth detailed accounts of these discoveries will appear in the next number of the School Annual.

The sixth volume of the School Annual, which appeared in the course of last spring, contained matter of special interest. It included an account by Mr. Arthur Evans of the first year's work on the Palace at Knossos, with papers by Mr. Hogarth on the Early Town and Cemeteries at Knossos and on the Dictaean cave, and by Mr. F. B. Velch on the pottery found at Knossos. The expense of publication was unusually heavy; but the excess has been largely recouped by additional sales, the proceeds of which will appear in next year's accounts, and also by a generous and unsolicited donation of £20 given by Mr. Darbshire in recognition of the special value of the number—an example which the Committee hope to see often followed in future.

Three open meetings of the School were held in Athens during the past session, and were well attended. The Committee are glad to record, as a sign of the friendly relations existing between the School and its neighbours, that at one of these meetings a paper was read by Dr. Wilhelm, Secretary of the Austrian Institute at Athens, on an inscription formerly in Mr. Finlay's house and now in the collection of the British School; while at another meeting a paper was read by a Greek scholar, M. Clon Stephanos, director of the Anthropological Museum in the Academy at Athens, on the ethnology of prehistoric Greece.

The School has been of assistance during the past year to several English students, whose residence in Greece was too short to enable them to become members, but who were glad to make the School their headquarters while at Athens. Among these were Mr. J. B. Holburn, of Merton College, Oxford, in December and January; Mr. J. F. Crace and Mr. W. Hasluck, both of King's College, Cambridge, in March and April; and Mr. A. M. Daniel, of Trinity College, Cambridge, in May and June. All of these resided for some weeks in the Hostel. Mr. Crace and Mr. Hasluck, and also Miss Crum, of Newnham College, spent the Easter vacation at Athens studying the archaeology of the Acropolis, which was set as a special subject in the second part of the Classical Tripos, and all were placed in the First Class. Mr. Hasluck will continue his work in Greece next year with the aid of the Studentship of £100 offered by the School to the University of Cambridge. Mr. Edgar, an old member of the School, and now on the staff of the Ghizeh Museum, also resided in the Hostel for a month last autumn, while continuing his work on the Phylakopi pottery.

The repairs to the School building, which were stated in last year's report to be urgent, were successfully carried out during the autumn of 1900 under the direction of Mr. Fyfe, who held the architectural studentship last year. The principal matter requiring attention was the reconstruction of the roof, but the opportunity has been

taken to carry out a number of minor improvements and repairs which have added greatly to the appearance as well as to the comfort and convenience of the School building.

The precinct in which the School and Hostel stand has also been much improved during the past year, by means of private subscriptions generously contributed by the Director and a few other friends of the School. A new carriage road has been constructed giving access to the School from the street on the south; several hundred trees have been planted; and a terraced walk has been made along the upper, or northern, end of the School grounds. It is proposed next year to complete the work by laying out the ground on the south-east side of the Hostel.

The Committee point out with satisfaction that the cost of the very considerable repairs to the School, amounting to over £450, has been defrayed out of the revenue of the last two years, without any inroad upon the small invested capital of the School. This result has been obtained mainly by the special grants for the Praesos excavations made by the Society of Dilettanti (£50) and the Cretan Exploration Fund (£200), together with one of £40 from the Cambridge Prendergast Fund made to the Director for the same purpose. For these the Committee desire to return warm thanks. They also acknowledge with equal warmth a substantial addition to their general funds of £46 17s. 9d., the result of contributions from visitors to Athens—mainly schoolmasters—on the steamer *Argonaut*, collected and handed over by the Rev. S. R. James, Headmaster of Malvern College.

In the course of the past spring, Mr. Loring, the Hon. Secretary of the School, returned from South Africa and for a time resumed his old post. But on receiving the offer of a commission in the Scottish Horse, he decided to go back to the seat of war. As Mr. Macmillan did not see his way to carry on the secretarial work any longer, Mr. R. J. G. Mayor, of the Board of Education, an old student of the School, most kindly agreed to act in Mr. Loring's absence and was accordingly appointed Secretary pro tem. under Rule 18. All friends of the School will have received with great regret the news that Mr. Loring was severely wounded in the right arm and leg in the attack on Col. Kekewich's column last month. As the wounds, however, were not classed as dangerous and Lieut. Loring is among those who are described as doing well, the Committee think it probable, in the absence of detailed information, that the School may ultimately be the gainers by his earlier return to England. In this hope they to-day re-nominate Mr. Loring as Hon. Secretary, and also nominate Mr. Mayor as Acting Hon. Secretary until Mr. Loring's return.

As promised in the last Report, the monograph on St. Luke's Monastery at Stiris, on which Messrs. Schultz and Barnsley have so long been engaged, has now been published; it has been generally recognised as a most valuable contribution to the study of Byzantine architecture. Friends of the School are reminded that Mr. Schultz still has a good deal of material in his hands if funds could be provided for publication, while the Committee would gladly set other students to

work in this important field if they were in a position to do so. Subscriptions to the Byzantine Architecture Fund for this purpose would be gladly received by the Treasurer. There are still some copies on hand of the monograph on St. Luke's, which can be obtained on application to the publishers, Messrs. Macmillan and Co., or from any bookseller.

Considerable progress has been made with the scheme for establishing a British School at Rome, to which reference was made in the last Report. In this case also it was necessary to find a substitute for Mr. Loring, and Mr. A. H. Smith, of the British Museum, has kindly consented to act as Secretary in his absence. Mr. G. McN. Rushforth, of Oriel College, Oxford, has been appointed Director of the School and has been resident in Rome since November 1900: an excellent set of rooms was acquired in January 1901, in the Palazzo Odescalchi, Piazza SS. Apostoli: and the School was formally opened by Lord Currie, H.M. Ambassador to the Quirinal, on April 11 last. Thanks to the generosity of Dr. Steele, for many years a physician in Rome, who has presented to the School a valuable collection of books and also some library furniture, the nucleus of a good library has been formed. In addition gifts of books have been kindly made by the Oxford and Cambridge University Presses, by the Trustees of the British Museum, and by the following publishers: Messrs. Macmillan, Murray, Longmans, Rivington, Bell, and Methuen. The work of the School has already begun. The Director has written a full report on the recent excavations, which appeared in the *Times* of January 9, and has delivered a lecture, which will shortly be published, on the ancient Church of Santa Maria Antiqua. A monograph on the Roman Roads in the Campagna, by Mr. T. Ashby, late Craven Fellow in the University of Oxford, and now a student at the School, is also nearly ready for publication. Additional funds are however urgently needed, if the work of the School is to be properly developed. It should be remembered that the work of the School will not be confined to classical archaeology. It is intended to be a centre for all British students in Rome: and the provisional scheme, approved by the General Committee, provides that every period of the language and literature, antiquities, art, and history of Rome and Italy shall be considered as falling within its province.

In conclusion, the Committee think that they are entitled to say that the British School at Athens is every year fulfilling more successfully the objects for which it was founded. In the work of excavation it has, even with the scanty means which were at first at its disposal, done much—as much, it may confidently be said, in proportion to its funds, as has been done by any of the other schools in Athens: and, in view of the somewhat greater financial stability which it is now beginning to enjoy and the opportunities available for work both in Crete and elsewhere, it may be hoped that results as interesting as any of those secured in the past will be forthcoming in the next few years. On the side of education too the school has done most valuable service in providing a centre for classical students who wish to supplement their work at the Universities by one or two years' work in Greece, while it has also been of great assistance to British travellers in Greece.

generally. There is however one thing which the School still urgently needs, namely, some provision for advanced students of archaeology, by which their services might be secured to the School for a series of years. In this respect the British School is at present weaker than any of the foreign schools in Athens, all of which include on their staff either an assistant director or one or more such advanced students. For the want of such assistance the School is considerably hampered both in the conduct of excavations and in the equally important and difficult task of preparing the results of excavations for publication. It is difficult however to see how the School can, with the funds now at its disposal, secure for any length of time the services of such men as are required without diminishing the sum, even under present circumstances by no means excessive, which is available for excavation ; and the Committee therefore hope that this need may receive the serious consideration of all friends of the School.

SIR RICHARD JEBB, in moving the adoption of the Report, addressed the meeting as follows :—

The contents of the interesting Report to which we have listened fully justify a remark which occurs towards its close,—namely, that the British School at Athens is continuing to fulfil the purposes for which it was founded. It was intended to be a permanent station at Athens, from which exploration in Hellenic lands might be conducted. It was to be, at the same time, a centre of regular training for students of Hellenic antiquity. And lastly, though this function was necessarily less definite, it was to serve as a sort of Archaeological Consulate for cultivated British visitors to Greece, a place where they could obtain advice and guidance as to the disposal of their time. The year which ended last summer is the fifteenth during which the School has performed this threefold office. There are some here to-day who can remember the beginning of that period. In October, 1886, the Executive Committee reported to a meeting of the General Committee and other friends of the School that a house had just been built for it at Athens, from plans generously furnished by Mr. F. C. Penrose ; and also that that eminent archaeologist had consented to go to Athens as Director of the School for one year. In July, 1887, the first Annual Meeting of Subscribers to the School was held in this room, under the presidency of the late Lord Carnarvon. The Report of the Committee recorded the successful completion of the School's first year of work, under the direction of Mr. Penrose. He had given public lectures on the Parthenon, the Erechtheum, and the Olympieum ; and, with aid from the Society of Dilettanti, had conducted excavations on the site of the Olympieum. The first two students admitted to the School under his Directorship were Mr. Ernest Gardner and Mr. Hogarth, both destined in later years to hold the office of Director. From that time to the present, the School has steadily gone on doing good work. It has gained an honourable position among the other institutions at Athens representing various nationalities, which are engaged in the same pursuits, and its relations with them, from the first, have been of the most cordial character.

In establishing this kind of archaeological centre, we came long after France and Germany. The French School at Athens was established in 1846. The present constitution of the German Institute at Athens dates (I think) from 1874; but there had been a Prussian Institute at Rome since 1829. Those who endeavoured to interest English scholars in the subject in the later seventies have some reason to remember the general apathy with which the notion was received. The traditional English feeling seemed to be that archaeological exploration is the affair of a gifted individual, of a William Martin Leake, a Henry Layard, or a Charles Newton. The idea of co-operation, and of a permanent centre in Greece, was too novel and too foreign to be readily accepted. At last, in 1883, the project for a British School at Athens was launched under the highest auspices, and with the best hopes. But, owing to the lack of general public interest in the matter, the School had to contend with financial difficulties, which only the aid of Oxford and Cambridge, and the liberality of some private friends, enabled it to surmount. The recent Government Grant to the School has been a much needed and well deserved assistance, and is especially to be welcomed as a recognition of the fact that it is a public service to maintain the position of England in this field of scientific research; a field which engages the energies of all the most highly civilised nations.

If now we turn to the School's record for the past year, the foremost fact is that the School has been doing its part in the latest researches. The centre on which the attention of classical archaeologists has lately been focussed is, without question, Crete.

England has been represented there by two agencies—that of the Cretan Exploration Fund, and that of the British School at Athens. With aid from the Cretan Fund, Mr. Arthur Evans, assisted by Mr. Duncan Mackenzie and Mr. Fyfe, has been continuing his remarkable discoveries at Knossos. The prehistoric palace proves to be even more extensive than was supposed. A great Central Court has been found; also flights of steps leading down to a columnar hall. Among the objects unearthed has been the lid of an Egyptian alabastron, engraved with the name of a Hyksos king, and a Babylonian cylinder of lapis lazuli, mounted with gold. Some further wall-paintings, too, have been found; in one of these, girls are seen taking part in the sport of bull-hunting. The poet Bacchylides, in the first of his recently recovered odes, describes the warlike Minos of Crete as returning from an expedition to "Knossos that beautiful city" (*ιμερτὰν πόλιν*). It is curious to reflect that, when Bacchylides wrote, these remains, which illustrate the ancient magnificence of Knossos, had already long been buried beneath the Cretan soil. After twenty-four centuries they have been found again, and the poet's phrase has now a more definite meaning for us than it perhaps had for himself. Mr. Hogarth's excavations at Zakro, on the east coast, also aided by the Cretan Fund, have discovered the traces of a Mycenaean settlement with large quantities of early pottery, and a remarkable collection of clay seal impressions, which may have been used for some commercial purpose. The work of the British School in exploring Praesos, on the central plateau of Eastern Crete, was carried on by the Director, Mr. Bosanquet, with Mr. Marshall and Mr. Wells; and has had some positive

results of great interest—chief among which must be placed the discovery of a second inscription in an unknown language, presumably that spoken by the old Eteocretan inhabitants, but written in Greek characters of the fifth century. As the Report has indicated, no vestiges of Mycenaean occupation were found at Praesos: for the Mycenaean gem, found embedded in the mortar of a late Greek house, had evidently come there by accident, having been brought in some earth taken from a neighbouring tomb. But the absence of such evidence at Praesos is in itself a significant fact. It supplements the positive results obtained at other places, by indicating a limit to the extent and influence of the Mycenacan settlements in early Crete. Those settlements were made along the coasts, but the civilisation which they brought did not penetrate to the central highlands. The members of the British School also worked, as we have heard, at Petras, seven miles north of Praesos, on the coast, and there found some Mycenacan remains.

While Crete has been the chief centre of interest, the year has not been barren of archaeological events in other parts of Hellas which are of interest for members and supporters of the British School. One, at least, of these deserves special mention. Professor Furtwängler has made a fresh examination of the temple in Aegina, and has ascertained that it was dedicated, not to any of the greater divinities, but to a local goddess called Aphaia. The dedicatory inscription has been found, and runs thus:—‘being priest’ (the name is mutilated), ‘the house was made for Aphaia; the altar and the ivory image were added; and the wall was made around it.’ All that is known about Aphaia may be read in an article by Dr. A. Rapp (in Roscher’s *Lexicon*) on Britomartis, the Cretan goddess with whom Pausanias identifies Aphaia. This Britomartis, flying from the pursuit of Minos, passed from Crete to Aegina, and there suddenly vanished: folklore connected the name Aphaia with ἀφαύις. Dr. Rapp finds in this myth the cloud on the mountain-top, which passes downwards, and disappears. The temple in Aegina was dedicated soon after 490 B.C., replacing an older Doric temple of the sixth century. Pausanias says (2, 30, § 3) that Pindar wrote a poem for the Aeginetans in honour of Aphaia. This poem may well have been a Prosodion, written for the dedication of the new temple. Attention may now be recalled to an old conjecture, that in Herodotus III. 59, where a temple in Aegina is mentioned, Αφαιῆς should be read, instead of Αθηναῖς.

There is no abatement, but rather an increase, in the activity with which Hellenic sites are being explored by the co-operation of various countries. The French, having completed (or nearly so) their work at Delphi, are about to examine the site of the temple of Athena Alea at Tegea. The American School is working at Corinth and at Oeniadae on the coast of Aetolia. The German Institute has been busy at Pergamon; the Austrian at Ephesus; the Prussian Museums at Miletus.

It is fitting, I think, on this occasion to offer our congratulations to the editors of the *Annual* of the British School at Athens, of which the sixth volume appeared last spring. It has proved a valuable adjunct to the activities of the School, and has well earned the place which it now holds in the English literature—a very select one—of classical archaeology.

In conclusion, I may perhaps be allowed to touch on the relation between the two principal aspects of the School's work. It aims at advancing knowledge. It also aims at educating young archaeologists. To preserve a due balance between these two objects may sometimes be a rather difficult task. It is very satisfactory to know that our Director has marked his first year of office by formulating some suggestions for the guidance of students. The teaching function of the School is evidently of high importance. Our supply of experts must largely depend upon it. The School at Athens, and, as we can now add, the recently opened School at Rome, offer the best facilities available to our countrymen for a practical training in archaeological work. Efficiency as a centre of such training is also one of the strongest grounds on which our School can found a claim for the continuance of that aid which the Government has justly and wisely extended to it. But we shall all be of one mind in desiring that this educational work should be carried on without detriment to the energies of the School as an agency for exploration and the advancement of knowledge. This brings me to the last point to which I would briefly advert. The Report notices a need of the School for which adequate provision has still to be made. It would be of great advantage to the Director if he could command the services of another advanced archaeologist—or of more than one such colleague—to assist in conducting excavations, and in editing the results for publication. Some of the foreign Schools are more fortunately circumstanced in that respect. What we want, it seems to me, is something in the nature of an archaeological Fellowship in connection with the School, to be tenable for a certain term of years. The appointment to such Fellowship might rest with the Managing Committee in consultation with the Director of the School for the time being. In selecting among candidates, a preference might be reserved to former students of the School who could produce evidence of good work; but candidature should not be restricted to such students. Such a Fellowship would be an object to which a student of the School might look forward as a possible opportunity of more advanced work. It would be a step towards organising a career for a man who possessed a genuine gift and love for such pursuits. It would also be a legitimate development of our School, bringing it nearer to the idea of a College of archaeology at Athens. The French School of Athens, it may be observed, actually possesses much of that character. I venture to throw out this suggestion rather as something that we might do well to keep in view, than as a proposal which there is any immediate prospect of realising. We may have to wait; but the fulfilment may be reached some day, possibly sooner than we can now foresee. Nineteen years ago, there was no British School at Athens; and what is more, very few people could then venture to anticipate that such a School would soon come into existence. To-day, the British School at Athens is an institution which all Englishmen who care at all for such studies can contemplate with just satisfaction. It is a School which the patient energies of successive Directors, and the loyal work of successive students, have carried through a time of trial to the stage of assured success; a School which has earned the recognition of the State, as rendering public service by contributing to the

advancement of knowledge, and by upholding the credit of this country in the peaceful and friendly rivalries of international effort; a School which, as we can now say with confident hope, has before it a future of even increased usefulness and distinction.

The motion was seconded by Mr. A. H. SMITH, and carried unanimously.

The Director, Mr. BOSANQUET, then gave some further account of the results of the excavations carried out during the past Session at Praesos and elsewhere.

The following Resolution was carried unanimously, on the motion of Mr. F. C. PENROSE, seconded by Mr. F. E. THOMPSON:—

"That Prof. ERNEST GARDNER, Prof. PERCY GARDNER, Prof. PELHAM, and Dr. WALDSTEIN be re-elected members of the Committee. That Dr. LEAF be re-elected Hon. Treasurer, and Mr. LORING Hon. Secretary, for the ensuing year, and that Mr. R. J. G. MAYOR be elected Acting Hon. Secretary until Mr. LORING'S return. That LORD LINGEN and Sir FREDERICK POLLOCK be re-elected Auditors of the School for the ensuing year, and that Mr. EDWIN WATERHOUSE be elected an additional Auditor."

A vote of thanks to the Auditors was moved by Prof. J. S. REID, seconded by Dr. LEAF, and carried unanimously.

A vote of thanks to the Chairman was carried unanimously, on the motion of Prof. PERCY GARDNER, seconded by Mr. A. P. WHATELEY.

Sir RICHARD JEBB acknowledged the vote, and the proceedings closed.

## INCOME AND EXPENDITURE 4TH OCTOBER, 1900, TO 3RD OCTOBER, 1901.

	£ s. d.		£ s. d.	£ s. d.
Annual Subscriptions as per list . . .	897 4 0	Director's stipend, one year . . .	500 0 0	
,,    ,,    for 1899-1900 . . .	10 0 0	Architect, Mr. Fyfe, balance . . .	25 0 0	
,,    ,,    paid in advance . . .	6 2 0	,,    Mr. Wells, on account . . .	50 0 0	
Government Grant . . . . .	500 0 0	Studentship, Mr. Frost . . . . .	100 0 0	
Cretan Exploration Fund <sup>1</sup> . . . . .	200 0 0	House maintenance <sup>1</sup> . . . . .	297 5 7	
Society of Dilettanti <sup>1</sup> . . . . .	50 0 0	Hostel maintenance . . . . .	79 19 11	
Prendergast Fund <sup>1</sup> . . . . .	40 0 0	Less Fees from Students . . . . .	44 8 7	
Interest on Investment . . . . .	56 17 6			35 11 4
Sale of Annual . . . . .	30 11 5	Excavations, Praesos . . . . .	394 12 0	
		,,    sundry pay- ments . . . . .	43 2 2	
				437 14 2
		Publication of Annual . . . . .	170 11 6	
		Printing, Postage, &c. . . . .	24 18 5	
		Sundries . . . . .	10 5 3	
		Subscriptions paid in advance . . . . .	6 2 0	
		Balance to capital . . . . .	133 6 8	
	<u>£1,790 14 11</u>			<u>£1,790 14 11</u>

<sup>1</sup> Special Grants for Excavations at Praesos.

<sup>1</sup> Including £246 6s. 3d. balance of repairs to roof and fabric.

## BYZANTINE FUND.

	£ s. d.		£ s. d.
Balance from last Account . . . . .	55 1 8	Balance forward . . . . .	55 1 8
	<u>£55 1 8</u>		<u>£55 1 8</u>

## CAPITAL ACCOUNT.

	£ s. d.		£ s. d.
Balance from last Account . . .	2,411 10 3	Library . . . . .	45 14 9
Donations, as per list . . .	107 1 9	Hostel furniture . . . . .	21 2 5
Balance of Income . . .	133 6 8	Balance to next Account . . .	2,585 1 6
	<hr/> <hr/>		<hr/> <hr/>
	£2,651 18 8		£2,651 18 8
	<hr/> <hr/>		<hr/> <hr/>

## BALANCE ACCOUNT.

	£ s. d.		£ s. d.
Balance of Capital . . . . .	2,585 1 6	Cash in Bank . . . . .	475 17 2
Subscriptions paid in advance .	6 2 0	Director, balance of Excavation Fund	
Byzantine Fund . . . . .	55 1 8	unexpended . . . . .	45 8 0
	<hr/> <hr/>	,, one quarter's stipend pre-	
		paid . . . . .	125 0 0
		India 3% Stock, at par . . . . .	2,000 0 0
	<hr/> <hr/>		<hr/> <hr/>
	£2,646 5 2		£2,646 5 2
	<hr/> <hr/>		<hr/> <hr/>

Examined and found correct,

LINGEN,  
FREDERICK POLLOCK.

October 11th, 1901.

## DONATIONS—1900-1901.

	£ s. d.
Crum, Miss Jessie . . . . .	1 1 0
Darbshire, R. D. . . . .	20 0
Gardner, Prof. Percy . . . . .	10 10 0
Keser, J., M.D. . . . .	3 3 0
Pawson, A. H. . . . .	5 0 0
Simpson, W. W. . . . .	10 0 0
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 Thompson, Sir Henry, Bart., 35, Wimpole Street, W.  
 Thompson, H. Y., Esq., 19, Portman Square, W.  
 Thompson, F. E., Esq., 16, Primrose Hill Road, N.W.  
 Thursfield, J. R., Esq., Fryth, Great Berkhamstead.  
 Tozer, The Rev. H. F., 18, Norham Gardens, Oxford.  
 Tuckett, F. F., Esq., Frenchay, Bristol.  
 Tuke, Miss Margaret, Newnham College, Cambridge.
- Vaughan, H., Esq., 28, Cumberland Terrace, Regent's Park, N.W.

- Vaughan, E. L., Esq., Eton College.  
 Verrall, A. W., Esq., Litt.D., Selwyn Gardens,  
     Cambridge.
- Waldstein, Charles, Esq., Litt.D., King's College,  
     Cambridge.
- Wandsworth, The Right Hon. Lord, 10, Great  
     Stanhope Street, W.
- Wantage, The Lady, 2, Carlton Gardens, S.W.
- Ward, John, Esq., F.S.A., Lenoxvale, Belfast.
- Warre, The Rev. E., D.D., Eton College, Wind-  
     sor.
- Warren, T. H., Esq., President of Magdalen Col-  
     lege, Oxford.
- Waterhouse, Edwin, Esq., Feldemore, near  
     Dorking.
- Weber, Sir. H., M.D., 10, Grosvenor Street, W.
- Wedgwood, G., Esq., Idle Rocks, Stone, Staff.
- Wells, J., Esq., Wadham College, Oxford.
- Wernher, Julius, Esq., 82, Piccadilly, W.
- West, H. H., Esq., c/o R. W. West, Esq., Casa  
     Bianca, Alassio, N. Italy.
- Westlake, Mrs., 3, Chelsea Embankment, S.W.
- Whateley, A. P., Esq., 4, Southwick Crescent,  
     W.
- Wickham, The Very Rev. E. C., The Deanery,  
     Lincoln.
- Wilson, R. D., Esq., 38, Upper Brook Street, W.
- Wimborne, The Right Hon. Lord, 22, Arlington  
     Street, S.W.
- Winkworth, Mrs., Holly Lodge, Campden Hill, W.
- Wrorth, Warwick, Esq., British Museum, W.C.
- Yates, Rev. S. A. Thompson, 43, Phillimore  
     Gardens, W.
- Yorke, V. W., Esq., Forthampton Court, Tewkes-  
     bury.
- Yule, Miss A., Tarradale House, Ross-shire  
     Scotland.

## DIRECTORS OF THE SCHOOL.

1886—1901.

- F. C. PENROSE, M.A., D.C.L., LL.D., F.R.S., 1886—1887.  
ERNEST A. GARDNER, M.A., 1887—1895.  
CECIL H. SMITH, LL.D., 1895—1897.  
DAVID G. HOGARTH, M.A., 1897—1900.  
R. CARR BOSANQUET, M.A., 1900—

## STUDENTS OF THE SCHOOL.

1886—1901.

- Ernest A. Gardner, Formerly Fellow of Gonville and Caius College, Cambridge, and Craven University Student. Admitted 1886—87. Director of the School, 1887—1895. Yates Professor of Archaeology at University College, London.
- David G. Hogarth, Fellow and formerly Tutor of Magdalen College, Oxford, and first Craven Fellow. Director of the School 1897—1900. Admitted 1886—87. Re-admitted (for work in Cyprus) 1887—88.
- Rupert Clarke, Exeter College, Oxford. Admitted 1886—87.
- F. H. H. Guillemand, Gonville and Caius College, Cambridge. First University Reader in Geography. Admitted (for work in Cyprus) 1887—88.
- Montague R. James, Fellow and Tutor of King's College, Cambridge; Director of the Fitzwilliam Museum. Admitted (for work in Cyprus) 1887—88, with grant of £100 from the University.
- R. Elsey Smith, Professor of Architecture and Construction, King's College, London. Appointed to Studentship by Royal Institute of British Architects, 1887—88.
- Robert Weir Schultz, Admitted as Travelling Student and Gold Medallist of the Royal Academy, 1887—88. Re-admitted 1888—89, 1889—90.
- Sidney H. Barnsley, Admitted as Student of the Royal Academy, 1887—88. Re-admitted 1889—90, 1890—91.
- J. A. R. Munro, Fellow and Tutor of Lincoln College, Oxford. Admitted (for work in Cyprus) 1888—89. Re-admitted (for same purpose) 1889—90.

- H. Arnold Tubbs, Pembroke College, Oxford ; Craven University Fellow. Professor of Classics in the University of Auckland. Admitted (for work in Cyprus) 1888—89. Re-admitted (for same purpose) 1889—90.
- James G. Frazer, Fellow of Trinity College, Cambridge. Admitted 1889—90, with grant of £100 from the University of Cambridge to collect material for commentary on Pausanias.
- William Loring, Late Fellow of King's College, Cambridge. Examiner in the Board of Education. Secretary of the School since 1897. Appointed to Cambridge Studentship, 1889—90. Re-admitted as Craven University Student, 1890—91, 1891—92, and 1892—93.
- W. J. Woodhouse, Queen's College, Oxford. Professor of Greek in the University of Sydney, N.S.W. Formerly Lecturer in Ancient History and Political Philosophy at the University of St. Andrew's. Appointed to Oxford Studentship, 1889—90. Re-admitted as Craven University Fellow, 1891—92 and 1892—93.
- G. C. Richards, Late Fellow of Hertford College ; Lecturer at Oriel College, Oxford. Formerly Professor of Greek at University College, Cardiff. Admitted as Craven University Fellow, 1889—90. Re-admitted 1890—91.
- O. H. Parry, Magdalen College, Oxford. Archbishop's Missioner to the Nestorian Christians. Admitted 1889—90.
- J. R. Stainer, Magdalen College, Oxford. Admitted 1889—90.
- R. A. H. Bickford-Smith, Trinity College, Cambridge. Admitted 1889—90.
- A. G. Bather, Late Fellow of King's College, Cambridge ; Assistant Master at Winchester College. Admitted 1889—90. Re-admitted 1891—92, on appointment to the Cambridge Studentship 1892—93 as Prendergast Greek Student ; and again, 1893—94, as Cambridge Student.
- . E. Sikes, Fellow and Tutor of St. John's College, Cambridge. Appointed to Cambridge Studentship, 1890—91.
- J. G. Milne, Corpus Christi College, Oxford. Examiner in the Board of Education. Appointed to Oxford Studentship, 1890—91.
- H. Stuart Jones, Fellow and Tutor of Trinity College, Oxford. Admitted as Craven University Fellow, 1890—91. Re-admitted 1892—93.
- Miss Eugénie Sellers, Admitted 1890—91. (Mrs. S. Arthur Strong.)
- F. B. Baker, Christ's College, Cambridge. Assistant Master at Malvern College. Admitted 1891—92.
- C. C. Inge, Magdalen College, Oxford. Appointed 1891—92 to the Oxford Studentship.
- E. F. Benson, King's College, Cambridge. Admitted 1891—92, with grant of £100 from the Worts Fund at Cambridge ; 1892—93 on appointment to the Cambridge Studentship. 1893—94 as Craven Student ; and 1894—95 as Prendergast Student.
- J. G. Smith, Magdalen College, Oxford. Admitted 1891—92. Re-admitted 1895—96.
- V. W. Yorke, Late Fellow of King's College, Cambridge. Admitted 1892—93. Re-admitted 1893—94.

- L. Myres, Student and Lecturer of Christ Church, and late Fellow of Magdalen College, Oxford. Admitted 1892—93. Re-admitted 1893—94, and 1894—95 as Craven Fellow.
- R. J. G. Mayor, Fellow of King's College, Cambridge, and Examiner in the Board of Education. Admitted 1892—93.
- R. Carr Bosanquet, Trinity College, Cambridge. Assistant Director of the School, 1899—1900. Director since 1900. Admitted 1892—93. Re-admitted as Craven University Student 1894—95, 1895—96, and 1896—97.
- J. M. Cheetham, Christ Church, Oxford. Admitted on appointment to the Oxford Studentship. 1892—93.
- E. R. Bevan, New College, Oxford. Admitted 1893—94.
- A. F. Findlay, Sent out from Aberdeen by the United Presbyterian Church of Scotland. Admitted 1894—95.
- T. Duncan, Sent out from Aberdeen by the Church of Scotland. Admitted 1894—95.
- J. E. Brooks, St. Peter's College, Cambridge. Admitted 1894—95. Re-admitted as Associate 1896—97.
- H. Awdry, New College, Oxford. Assistant Master at Wellington College. Admitted 1894—95.
- Duncan Mackenzie, Universities of Edinburgh and Vienna. Admitted 1895—6. Re-admitted 1896—7, 1897—8 and 1898—9.
- Archibald Paterson, University of Edinburgh. Admitted 1895—96.
- Charles R. R. Clark, Appointed 1895—96, and re-appointed 1896—97 by the Managing Committee to an Architectural Studentship.
- C. C. Edgar, Oriel College, Oxford. English Member of the Cataloguing Committee, Ghizeh Museum. Admitted 1895—96, and re-admitted 1896—97 (as Craven University Fellow), 1897—98 and 1898—9.
- F. R. Earp, Fellow of King's College, Cambridge. Admitted 1896—97.
- F. A. C. Morrison, Jesus College, Cambridge. Admitted (as Prendergast Greek Student) 1896—97.
- H. H. West, Trinity College, Cambridge. Admitted 1896—97.
- Miss C. A. Hutton, Girton College, Cambridge. Admitted 1896—97.
- Pieter Rodeck, Architect to Arab Monuments Committee, Cairo. Admitted 1896—97 as Travelling Student and Gold Medallist of the Royal Academy.
- J. G. C. Anderson, Late Fellow of Lincoln College, Student and Lecturer of Christ Church, Oxford. Admitted (as Craven University Fellow) 1896—97.
- J. W. Crowfoot, Hulmean Exhibitioner of Brasenose College, Oxford. Education Department, Cairo. Formerly Lecturer in Classics, Mason College, Birmingham. Admitted, on appointment to the Oxford Studentship, 1896—97. Re-admitted 1897—98.
- W. W. Reid, Universities of Aberdeen and Edinburgh. Admitted, as holder of Blackie Travelling Scholarship, 1896—97.
- A. E. Henderson, Gold Medallist and Travelling Student of the Royal Academy. Admitted 1897—98. Re-admitted 1898—9.

W. A. Curtis,	Heriot Scholar of Edinburgh University. Admitted 1897-98.
A. J. Spilsbury,	Queen's College, Oxford. Admitted 1897-98, on appointment to the Oxford Studentship.
E. B. Hoare,	Magdalen College, Oxford. Admitted 1897-98, as Architectural Student.
J. C. Lawson,	Fellow and Lecturer of Pembroke College, Cambridge. Admitted as Craven University Student, 1898-9. Re-admitted 1899-1900.
C. D. Edmonds,	Emmanuel College, Cambridge. Assistant Master at Elstree School. Admitted as Prendergast Student, 1898-9.
J. H. Marshall,	King's College, Cambridge. Director-General of the Archaeological Survey of India. Admitted, 1898-9. Re-admitted as Prendergast Student, 1900-01.
Clement Gutch,	King's College, Cambridge. Lecturer at Girton College. Admitted, 1898-9.
F. B. Welch,	Magdalen College, Oxford. Assistant Master at Pocklington School. Admitted as Craven University Fellow, 1898-9. Re-admitted 1899-1900.
T. D. Atkinson,	Secretary of Cambridge Antiquarian Society. Admitted as Architectural Student, 1898-9.
J. K. Fotheringham,	Merton and Magdalen Colleges, Oxford. Admitted on appointment to Oxford Studentship, 1898-9.
J. H. Hopkinson,	University College, Oxford. Lecturer in Greek, University of Birmingham. Admitted as Craven University Fellow, 1899-1900 and 1900-01.
S. C. Kaines-Smith,	Magdalene College, Cambridge. Admitted 1899-1900, on appointment to Cambridge Studentship.
Miss O. C. Köhler,	Girton College, Cambridge. Admitted 1899-1900.
D. Theodore Fyfe,	Admitted 1899-1900, on appointment to Architectural Studentship. Architect to the Cretan Exploration Fund.
K. T. Frost,	Brasenose College, Oxford. Admitted on appointment to the Oxford Studentship, 1900-01.
R. D. Wells,	Trinity College, Cambridge. Admitted on appointment to the Architectural Studentship, 1900-01.
J. ff. Baker-Penoyre,	Keble College, Oxford. Admitted 1900-01.

## ASSOCIATES OF THE SCHOOL.

Professor J. B. Bury,	Trinity College, Dublin. Admitted 1895-6.
Rev. A. H. Cruickshank,	The College, Winchester. Admitted 1895-6.
Arthur J. Evans,	Keeper of the Ashmolean Museum, Oxford. Admitted 1895-6.
Ambrose Poynter,	Admitted 1896-7.
J. E. Brooks,	A former Student of the School. Admitted 1896-7.
J. L. Myres,	Student of Christ Church, Oxford; a former Student of the School. Admitted 1896-7.
Professor E. A. Gardner,	Formerly Director of the School. Admitted 1897-8.

# British School at Athens.

## METHODS OF WORK AND TEACHING.

*Extracted from a recent report of the present Director to the Managing Committee.*

UNDER an ideal system most students would spend two, some three, seasons in Greece, devoting the first year to general studies, the second to some special subject.

During the first year a man need not lose sight of his special subject, but in most cases it would pay him to adopt something like the following programme :

[August and] September. In Berlin (Munich, Dresden) to become familiar with spoken German and so be able to profit by some of the 3 or 4 courses of lectures given by the Secretaries of German and Austrian Institutes.

October. Arrive in Greece. Face the difficulties of language and travelling. See Olympia, Delphi, Mycenae, Epidaurus, the Heraeum near Argos, before the rains begin in November.

About November 15. Settle down in Hostel for 3 or 4 months of steady work on sites and in Museums, attending some of the half-dozen available courses of lectures, and making frequent short excursions into the country, by train, bicycle, carriage, or on mule-back. A bicycle is invaluable.

This residence in the Hostel, with occasional absences for a few nights in the country, should last until the beginning or middle of March according to the season.

March, April. Travel, study ancient sites.

If possible join one of the island-cruises to which Professor Gardner and Professor Dörpfeld have hospitably admitted students in the past.

May, June. Begin to concentrate attention on special work : e.g. a man may assist in excavations, with a view to working upon the results during the coming year and excavating with more or less complete control or independence in his second summer : or he may explore a given district in Greece or Asia Minor, an island or group of islands : or he may work his way homewards through a number of Museums in Italy, Austria and Germany : or attend Mau's summer-course of lectures at Pompeii and afterwards spend some months in Rome and the cooler Etruscan cities. In the latter case he will do well to attach himself to the newly founded British School at Rome ; a library is being formed in the rooms of the School in the Odescalchi Palace, and Mr. G. McN. Rushforth, the Director, is ready to aid and advise students.

For the second year it is impossible to formulate a definite scheme. It should be devoted almost entirely to special work in a narrower field.

The course here suggested must be modified in different ways to suit each case. There will always be men who, like most of the French students, are already specialists in some branch of classical learning and only seek fresh material for research. On the other hand there will be others who wish to see something of all sides of ancient life, to visit sites and battle fields, illuminating and colouring their past reading and fitting themselves for general classical teaching : but have no time for minute archaeological studies.

It is evident that in each year the methods and matter of the teaching at the School must be adapted to the requirements of the students. Students from English universities will never have the love of formal lectures which distinguishes those from America, and where the numbers are small it will often be better to teach, as Dr. Wolters has been in the habit of doing, by means of informal visits to sites and Museums.

February 1901.

# RULES AND REGULATIONS OF THE BRITISH SCHOOL AT ATHENS.

## OBJECTS OF THE SCHOOL.

I. The first aim of the School shall be to promote the study of Greek archæology in all its departments. Among these shall be (i) the study of Greek art and architecture in their remains of every period ; (ii) the study of inscriptions ; (iii) the exploration of ancient sites ; (iv) the tracing of ancient roads and routes of traffic.

II. Besides being a School of Archæology, it shall be also, in the most comprehensive sense, a School of Classical Studies. Every period of the Greek language and literature, from the earliest age to the present day, shall be considered as coming within the province of the School.

III. The School shall also be a centre at which information can be obtained and books consulted by British travellers in Greece.

IV. For these purposes a Library shall be formed, and maintained, of archaeological and other suitable books, including maps, plans, and photographs.

## THE SUBSCRIBERS.

V. The following shall be considered as Subscribers to the School :—

- (1) Donors of £10 and upwards.
- (2) Annual Subscribers of £1 and upwards during the period of their subscription.
- (3) Corporate bodies subscribing £50 at one time or £5 annually.

VI. A corporate body subscribing not less than £50 a year, for a term of years, shall, during that term, have the right to nominate a member of the Managing Committee.

VII. A meeting of Subscribers shall be held in October of each year, at which each Subscriber shall have one vote. A subscribing corporate body may send a representative. At this meeting a report from the Managing Committee shall be presented, including a financial statement and selections from the reports of the Director and Students for the season. At this meeting shall also be annually elected or re-elected the Treasurer and the Secretary of the School, two Auditors, and four members of the Managing Committee, in place of those retiring, under Rule XIII. (3).

VIII. Special meetings of Subscribers may, if necessary, be summoned by the Managing Committee.

IX. Subscribers shall be entitled to receive a copy of any reports that may be published by the School, to use the Library, and to attend the public meetings of the School, whenever they may be in Athens.

## THE TRUSTEES.

X. The property of the School shall be vested in three Trustees, who shall be appointed for life, except as hereinafter provided. Vacancies in the number of Trustees shall be filled up at the annual meeting of the Subscribers.

XI. In the event of a Trustee becoming unfit, or incapable of acting, he may be removed from his office by a majority of three-fourths of those present at a special meeting of Subscribers summoned by the Managing Committee for that purpose, and another Trustee shall by the same majority be appointed in his place.

XII. In the event of the death or resignation of a Trustee occurring between two annual meetings, the Managing Committee shall have the power of nominating another Trustee to act in his place until the next annual meeting.

## THE MANAGING COMMITTEE.

XIII. The Managing Committee shall consist of the following :—

- (1) The Trustees of the School.
- (2) The Treasurer and Secretary of the School.
- (3) Twelve Members elected by the Subscribers at the annual meetings. Of these, four shall retire in each year, at first by lot, afterwards by rotation. Members retiring are eligible for re-election.
- (4) The members nominated by corporate bodies under Rule VI.

XIV. The Committee shall have control of all the affairs of the School, and shall decide any dispute that may arise between the Director and Students. They shall have power to deprive any Student of the use of the school-building.

XV. The Committee shall meet as a rule once in every two months; but the Secretary or Treasurer may, with the approval of two members of the Committee, summon a special meeting when necessary.

XVI. Due notice of every meeting shall be sent to each member of the Committee by a summons signed by the Secretary. Three members of the Committee shall be a quorum.

XVII. In case of an equality of votes, the Chairman shall have a second or casting vote.

XVIII. In the event of vacancies occurring among the officers or on the Committee between the annual elections, they may be provisionally filled up by the Committee until the next annual meeting.

#### STUDENTS AND ASSOCIATES.

XIX. The Students shall consist of the following :—

- (1) Holders of travelling fellowships, studentships, or scholarships at any University of the United Kingdom or of the British Colonies.
- (2) Travelling Students sent out by the Royal Academy, the Royal Institute of British Architects, or other similar bodies.
- (3) Other persons who shall satisfy the Managing Committee that they are duly qualified to be admitted to the privileges of the School.

No person shall be admitted as a Student who does not intend to reside at least three months in Greek lands.

XX. Students attached to the School will be expected to pursue some definite course of study or research in a department of Hellenic studies, and to write in each season a report upon their work. Such reports shall be submitted to the Director, shall by him be forwarded to the Managing Committee, and may be published by the Committee if and as they think proper.

XXI. Intending Students are required to apply to the Secretary. They will be regarded as Students from the date of their admission by the Committee to the 31st day of October next following; but any Student admitted between July 1st and October 31st in any year shall continue to be regarded as a Student until October 31st of the following year.

XXII. The Managing Committee may elect as Associates of the School any persons actively engaged in study or exploration in Greek lands; and may also elect as honorary members such persons as they may from time to time think desirable.

XXIII. Students, Associates, and honorary members, shall have a right to use the Library of the School, and to attend all lectures given in connexion with the School, free of charge.

XXIV. Students shall be expected to reside in the Hostel provided for them, except with the sanction of the Managing Committee. Priority of claim to accommodation in the Hostel shall be determined by the Committee.

#### THE DIRECTOR.

XXV. The Director shall be appointed by the Managing Committee, on terms which shall be agreed upon at the time, for a period of not more than three years. He shall be eligible for re-election.

XXVI. He shall have possession of the school-building as a dwelling-house; but Students of the School shall have a right to the use of the Library at all reasonable times.

XXVII. It shall be his duty (1) to guide and assist the studies of Students and Associates of the School, affording them all the aid in his power, and also to see that reports are duly furnished by Students, in accordance with Rule XX., and placed in the hands of the Secretary before the end of June; (2) to act as Editor of the School Annual.

XXVIII. (a) Public Meetings of the School shall be held in Athens during the season, at which the Director and Students of the School shall read papers on some subject of study or research, and make reports on the work undertaken by the School. (b) The Director shall deliver lectures to Students of the School. At least six of such meetings and lectures shall be held in the course of each session.

XXIX. He may at his discretion allow persons, not Students of the School, to use the Library and attend his lectures.

XXX. He shall be resident at Athens from the beginning of November in each year to the end of the following June, but shall be at liberty to absent himself for short periods for purposes of exploration or research.

XXXI. At the end of each season he shall report to the Managing Committee—(i) on the studies pursued during the season by himself and by each Student; (ii) on the state of the School-premises and the repairs needed for them; (iii) on the state of the Library and the purchases of books, &c., which he may think desirable; and (iv) on any other matter affecting the interests of the School.

XXXII. In case of misconduct the Director may be removed from his office by the Managing Committee by a majority of three-fourths of those present at a meeting specially summoned for the purpose. Of such meeting at least a fortnight's notice shall be given.

## RULES FOR THE MACMILLAN HOSTEL.

XXXIII. The Hostel shall be managed by the Students for the time being, subject to the control of the Director.

XXXIV. The Director shall have power to exclude a Student from the Hostel in case of misconduct; but such exclusion must be immediately reported to the Managing Committee.

XXXV. The Students shall, until further notice, pay a fixed charge of 20 drachmas (paper) a week for their rooms, this payment to include fire, lighting, and the necessary servants' wages.

XXXVI. Associates of the School, members of the Committee, and ex-directors, may be admitted to residence in the Hostel. Other persons, if seriously engaged in study or research, may be admitted by the Director at his discretion. But no person shall reside in the Hostel under this rule to the exclusion of any Student desiring admission.

XXXVII. The weekly charge for residents other than Students shall be 30 drachmas (paper) until further notice.

XXXVIII. The Director shall draw up further rules for the internal management of the Hostel; such rules to be subject to the approval of the Managing Committee.

## RULES FOR THE LIBRARY.

XXXIX. The Director shall have power to make rules for the management of the Library, to be used by Students, and the like; such rules to be subject to the approval of the Managing Committee.

## PUBLICATION.

XL. No publication whatever, respecting the work of the School, shall be made without the previous approval of the Committee.

## THE FINANCES.

XLI. All money received on behalf of the School beyond what is required for current expenses shall be invested in the names and at the discretion of the Trustees.

XLII. The banking account of the School shall be placed in the names of the Treasurer and Secretary, who shall sign cheques jointly.

XLIII. The first claim on the revenue of the School shall be the maintenance and repair of the School-building, and the payment of rates, taxes, and insurance.

XLIV. The second claim shall be the salary of the Director, as arranged between him and the Managing Committee.

XLV. In case of there being a surplus, a sum shall be annually devoted to the maintenance of the Library of the School and to the publication of a report; and a fund shall be formed from which grants may be made for travelling and excavation.

*Revised, 1899.*

## MANAGING COMMITTEE, 1901-1902.

EDWIN FRESHFIELD, Esq., LL.D.

SIR RICHARD JEBB, Litt.D., D.C.L., LL.D., M.P. } Trustees.

GEORGE A. MACMILLAN, Esq.

D. B. MONRO, Esq., M.A., Provost of Oriel. Appointed by the University of Oxford.

PROFESSOR WILLIAM RIDGEWAY, M.A. Appointed by the University of Cambridge.

SIDNEY COLVIN, Esq., M.A. Appointed by the Hellenic Society.

ARTHUR J. EVANS, Esq., LL.D., F.R.S.

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PROFESSOR PERCY GARDNER, Litt.D.

MISS JANE E. HARRISON, D.Litt., LL.D.

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J. LINTON MYRES, Esq., M.A.

PROFESSOR H. F. PELHAM, M.A., President  
of Trinity College, Oxford.

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CECIL HAROURT SMITH, Esq., LL.D.

PROFESSOR J. S. REID, Litt.D.

PROFESSOR CHARLES WALDSTEIN, Litt.D.

WALTER LEAF, Esq., Litt.D., Hon. Treasurer, 6, Sussex Place, Regent's Park, N.W.

WILLIAM LORING, Esq., M.A., Hon. Secretary, 2, Hare Court, Temple, C.

Appointed by the Subscribers.

## Director, 1901-1902.

R. CARR BOSSANQUET, Esq., M.A., Trinity College, Cambridge.

## British School at Athens.

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THIS School (founded in 1886) gives to British Students of Greek Archaeology and Art the opportunity of pursuing their researches in Greece itself, with command of the means which the recent great advances of the science have rendered indispensable.

Athens is now an archaeological centre of the first rank. The architecture of Greece can nowhere else be studied to such advantage; and the concentration in the Athenian museums of numerous and most important discoveries which have taken place on Greek soil in the last few years has made a personal knowledge of those museums in the highest degree desirable for Hellenic scholars.

The student requires two auxiliaries when working in Athens. Firstly, the command of an adequate library; and secondly, the advice of a trained archaeologist, residing on the spot, and following the rapid advances of the science, due partly to new discovery and partly to the rearrangement of old materials.

These advantages are now provided for French, German, Austrian, American, and British archaeologists, through the Schools which their nationalities have established. It is also by means of these Schools that many excavations on Greek soil have been carried out; and those conducted in Cyprus, in the Peloponnese, in Melos and in Crete by the British School during the past fifteen Sessions are an encouraging proof of the work that may be done in the future if the School be adequately supported.

Any persons of British nationality who can give satisfactory proof of their qualifications are admitted as students free of charge. The principal conditions imposed are that they shall pursue some definite course of Hellenic study or research, residing for the purpose not less than three months in Greek lands, and that they shall at the end of the Session write a report of the work which they have done. Applications from intending students should be made to the Hon. Sec., WILLIAM LORING, Esq., 2, Hare Court, Temple, E.C. Mr. LORING will also be happy to supply any further information.

Donations or annual subscriptions to the School are greatly needed, and will be gladly received and acknowledged by the Hon. Treasurer, WALTER LEAF, Esq., 6, Sussex Place, Regent's Park, N.W.

*April 1902.*

RICHARD CLAY AND SONS, LIMITED,  
LONDON AND BUNGAY.

THE ANNUAL

OF THE

BRITISH SCHOOL AT ATHENS

No. VIII.

SESSION 1901-1902

LONDON

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1971

# THE BRITISH SCHOOL AT ATHENS.

PATRON.—HIS MAJESTY THE KING.

## MANAGING COMMITTEE, 1901—1902.

EDWIN FRESHFIELD, Esq., LL.D.

SIR RICHARD JEBB, Litt.D., D.C.L., LL.D., M.P. } *Trustees.*

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## THE PALACE OF KNOSSOS.

*Provisional Report of the Excavations for the Year 1902.*

(PLATES I.—III.)

### § 1.—THE CAMPAIGN OF 1902.

As far as it was possible to forecast the Campaign of 1902 on the Palace site of Knossos it promised to be one of finishing up in a limited quarter of the East Slope, with some further delimitation of already fairly ascertained boundaries. But appearances were deceptive. Not only did the work of excavating the remainder of the deep-lying rooms of the Central part of this quarter prove to be of extraordinary difficulty, owing to the masses of heavy superstructures that it was necessary to support, but the building was found to extend further down the slope than the preliminary trial pits had led us to expect. In several cases these had just missed important walls, with the result that vast masses of excavated materials had, towards the close of the previous campaign, been dumped down in places from which they had this year to be removed at the cost of much labour. It was also found that several of the chambers previously excavated along the edge of the second East Slope Terrace—notably those near the Olive Press—overlaid basement areas containing important remains, and these, in turn, the floor levels of a still earlier Palace, covered with pottery of the pure ‘Kamáres’ class. On the lower Terrace again were brought to light whole ranges of rooms and magazines belonging to this more primitive system and containing what are probably the finest existing specimens of the ‘Middle Minōan’ ceramic class.

The work began on February 12, and continued in full swing till the end of June. The extensive character of the operations may be judged from the fact that during a good deal of this time as many as 250 workmen were employed. The arduous labour of propping up walls, raising sunken blocks, supporting upper floor-levels (see Fig. 1), and reconstructing

fallen masses of pavement necessitated the constant services of over a score of carpenters and masons. The purchase and transport of the timber, brick, iron, and other materials required for this work also entailed a serious expenditure. The conservation of such unexampled remains of upper stories existing *in situ* seemed, however, to be a first duty of the excavator and it may at least be said that no labour or expense has been spared to preserve this evidence. The result has been that throughout the whole central area of the Eastern quarter of the Palace the upper rooms,

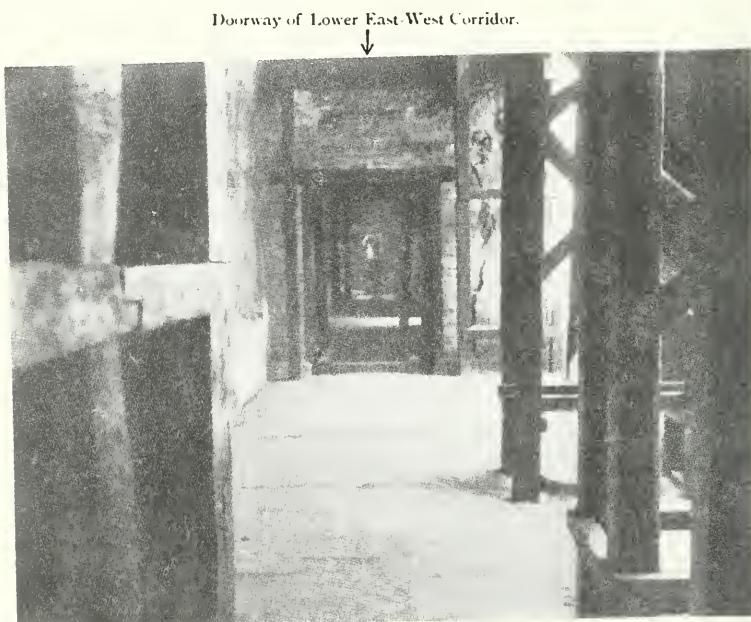


FIG. 1.—VIEW FROM FOOT OF QUADRUPLE STAIRCASE LOOKING EAST ALONG PORTICO OF HALL OF COLONNADES.

with their door-blocks, pillar-bases, and large parts even of their pavements, have been firmly secured in their original position.

*Pari passu* with the opening up of new ground the work of testing and revision was continued in the parts of the site already excavated. Such re-examination has necessarily entailed a certain amount of rectification in plans and conclusions set forth in preceding Reports, a fact which may serve to emphasize the provisional character of the summary accounts given in these pages of successive season's works. In

the quarter about the Northern Entrance, particularly, further investigations and the removal of what proved to be later walls have led to altogether new developments, including the discovery of a spacious outer portico.

In directing the works I had, as before, the valued assistance of Dr. Duncan Mackenzie, who is also engaged on a special study of the pottery found in the Palace.<sup>1</sup> I was also fortunate in again securing the services of Mr. Theodore Fyfe for the architectural plans and necessary works of conservation, and he has at my request communicated a paper on the decorative frescoes and architectural reliefs to the Royal Institute of British Architects.<sup>2</sup> The practical work, especially that of raising and supporting large blocks, was also much aided by the presence this year as foreman of the works of Gregorios Antoniou, so well known for his most capable exercise of similar functions for a succession of British excavations in Cyprus as well as for Mr. Hogarth in the Dictaeon Cave and at Zakro.

#### § 2.—SUPPLEMENTARY DISCOVERIES IN THE NORTHERN PALACE REGION: ENTRANCE PORTICO AND EXTERNAL PILLAR-HALL.

In the exceptionally massive square of constructions that lie to right of the Northern Entrance passage as approached from without, between the North Piazza and the Central Court, further researches and excavations did much to bring out the original lines of the building which had been greatly obscured by later walls. The plan as thus recovered was really much simpler. The double door from the North Piazza was found to give access to a kind of oblong atrium, the back part of which must have been connected to the right with an ascending stepped corridor that leads South to the Corridor of the Stone Basin. A direct and convenient line of communication would thus have been provided between the antechamber of the Throne Room and the North-West corner of the Central Court on the one side and the North Piazza and adjoining Bath system on the other. (See Sketch Plan, Pl. I.)

The square enclosed between the upper part of this connecting passage and the Northern Entrance way was divided into three elongated ground floor rooms, with floor levels a little below the level of the Central

<sup>1</sup> To appear in the forthcoming number of the *Journal of Hellenic Studies*.

<sup>2</sup> 'Painted plaster decoration at Knossos,' *Journal of the R. Inst. of British Architects*, Third Series, Vol. X. (No. 4), p. 107 seqq. Mr. Fyfe has executed the Architectural Plans in this Report.

Court. These rooms, as the important remains of wall-paintings found above their floors sufficiently indicate, had originally supported a fine upper hall to which unquestionably belonged the miniature and other frescoes found here above the lower floors. The three ground-floor rooms in question had, as already shown, been subsequently re-occupied with slightly raised floor levels, during the mature Mycenaean Period, and a good deal remodelled. The Westernmost of the original three chambers had in this way been broken up into two smaller rooms belonging to this Period of Re-occupation, in one of which the stirrup-vases were found.

Each of the three elongated chambers mentioned above has at its Northern end one of the deep, walled pits described in the last Report, resembling the 'oubliettes' of a mediaeval castle, and which probably served as dungeons. This makes it probable that the chambers connected with these were occupied by guards and warders.

The removal of some later walling, consisting of older materials re-used in a promiscuous manner, on the East side of the lower part of the Northern entrance brought to light the lower blocks and bases of five massive square pillars which were seen to form part of a system. Further excavation Northwards resulted in the uncovering of several more bases and finally revealed the plan of a Portico consisting of twelve pillars. Of the South-Easternmost of these all traces had vanished and only the foundation socket was visible of the last but one to the North-West, but the arrangement and regular espacement of the pillars was otherwise quite clear. (See Plan, Fig. 2, and Fig. 3.)

This Portico, consisting thus of a double row of six pillars, flanked the roadway running North from the entrance passage for a distance of about twenty metres. At the same time its central opening faced the remains of what seems to have been a double gateway from which the traces of another paved road ran West. The Portico thus stood at the chief point of access to the Palace both from the City and the Sea-port. The square pillars as far as they were preserved consisted of gypsum blocks 85 cm. x 85 and 1.05 in height resting on larger bases and placed at intervals of 2.65 metres (Fig. 3).

Opposite the Northern part of the Portico and dominating the meeting point of the two roads are massive remains of what appears to have been a tower or guard-house, and, facing this, a massive bastion. Indeed, as already noticed in the first Report, there is every evidence that the

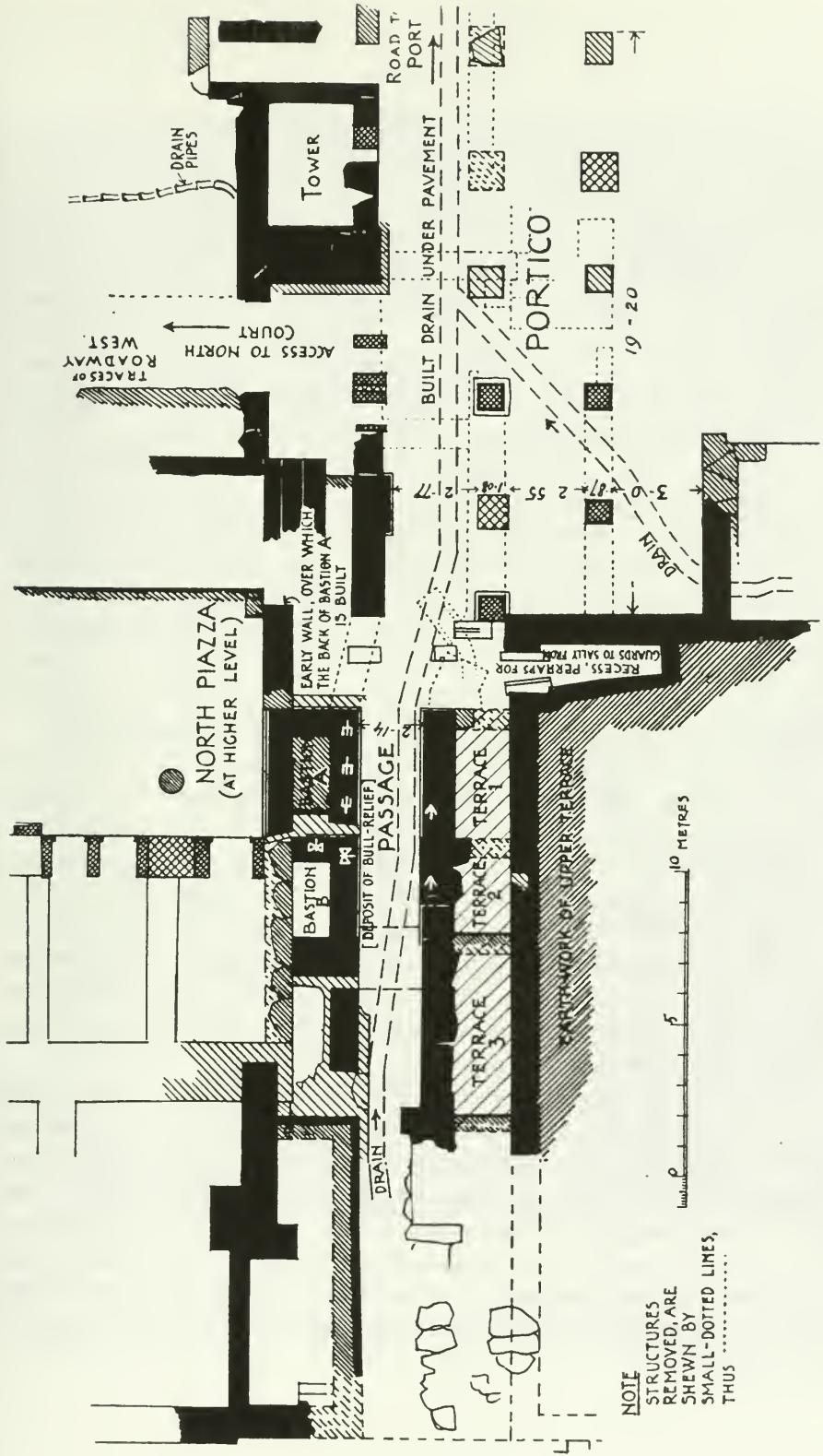


FIG. 2.—PLAN OF NORTHERN ENTRANCE AND PORTICO.

Northern entrance to the Palace, which must have been the chief avenue of public access, was jealously guarded.

Further North all remains of the Palace proper cease and the roadway itself with its accompanying main-drain also breaks off. At a distance however of about twenty-five metres North of the Portico was found the basement of an important building which from its position seems to stand in some relation to the Palace. The Southern wall-line of this building lies in fact at the point at which the Northern roadway if prolonged would be intersected by the small paved causeway that runs, pointing in this direction, past the North-Westernmost angle of the Palace. The main part of this building is a room, about 5·30 by 8 metres, in which at a distance of 1·62 metre from the North wall stood two pillars consisting of tall gypsum blocks. One of these was 50 cm. square with bevelled edges and 1·52 metre in height. It was standing *in situ*, the upper part of the pillar being visible in the floor of a modern threshing-floor. The other pillar, shaped like the first, was found in a half-fallen position and proved to be 2 metres in height, though much corroded. These pillars stood on square limestone bases with an interval of 1·10 metre between them.

That this pillar-hall was a basement structure appears probable from the fact that the outer stones of the walls show a rough face. The North and East walls were of exceptionally large limestone blocks—one 1·72 m. in length by 0·64 in height. Of the South wall only a fragment remained. The West wall consists of two courses each about 50 cm. high with a plinth below. It is constructed of more finely cut blocks, like some of the best Mycenaean work of the Palace. Several fallen blocks of the same kind evidently belonging to the upper storey showed the trident mark so characteristic of the great bastion of the North Entrance of the Palace. In one case this was combined with the star.

As a whole, however, the construction of this isolated building differs from that usual in the Palace itself. That the walls should be constructed wholly of masonry was itself an exceptional phenomenon. In the door openings, on either side there were none of the regular jambs. The pillars, formed of single blocks, resembled one or two found in the earlier structures, associated with fine 'Kamáres' pottery, on the South-East slope. It may be supposed that here, as in the case of the Pillar Rooms of the Palace, these basement pillars formed the supports of a pair of columns in an upper hall.

Road turning  
West.



Bastion A.



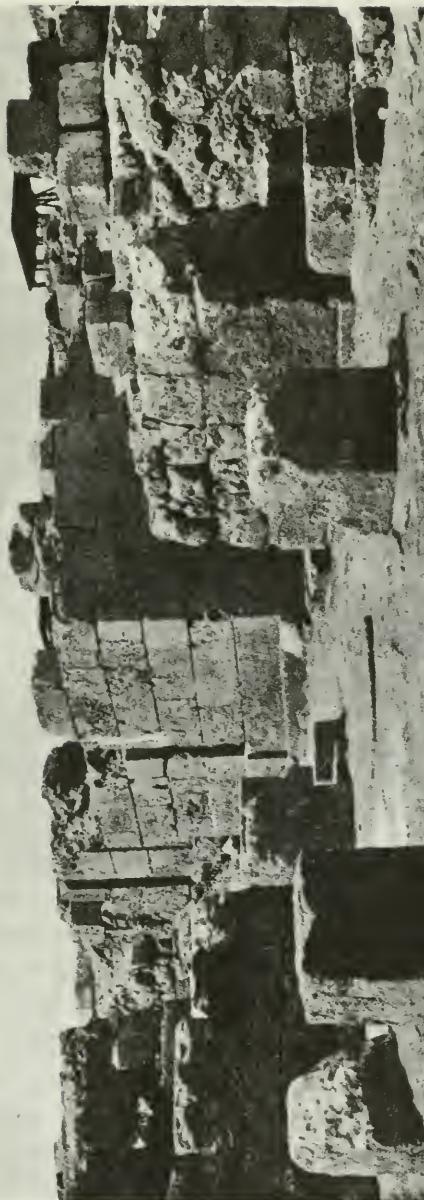
Bastion B.



Passage up to  
Central Court.



Wall  
supporting  
Earth terrace



Roadway  
running  
N.



Pillars of Portico.



Opening of Passage leading  
up to Central Court.



FIG. 3.—NORTHERN PORTICO AND ENTRANCE PASSAGE.

On the floor level of this room, formed of stamped clay,<sup>1</sup> was a stratum of burnt wood and a good deal of rough mature Mycenaean pottery was here found, together with some fragments of Geometrical ware. About 10 metres due North of the North wall of the chamber and centering with it, a well was discovered, the bottom of which was finally reached at a depth of 15·50 metres. This well also contained throughout potsherds belonging to the same two classes. A little East of this spot were found what seemed to be the remains of an oven-shaped tomb containing broken vases of the same Geometrical class as that found in the well and Pillar Hall.

The occurrence in this area of Geometrical pottery seems to show that this Pillar Hall and its dependencies, though of earlier origin, had continued to be occupied in post-Mycenaean times. It thus presents a striking contrast to the Palace proper, where traces of the Geometrical Period have been throughout conspicuous by their absence. 'Geometrical' tombs, some of which were explored by Mr. Hogarth,<sup>2</sup> occur on the hills that overlook the later Greek and Roman town of Knossos to the North.

### § 3.—DEVELOPMENT OF THE OLIVE PRESS SYSTEM: THE COURT OF THE OIL SPOUT AND ADJOINING MAGAZINES OF THE KNOBBED *PITHOI*.

The further investigation of the area in the neighbourhood of the Room of the Olive Press and of the adjoining lower terrace led to a series of discoveries which bring the whole of this region into systematic relation and show that they were devoted to the manufacture and storage of oil.

Additional sections of the stone duct or runnel leading from the oil-vat were brought to light, proceeding by an angular course along the adjoining wall-tops towards the curious spout of gargoyle-like aspect that had been found projecting from the outer side of the Upper East Terrace wall (Fig. 4).<sup>3</sup> It thus appears that this stone spout was not, as had been at first supposed, connected with a rain-water gutter, but was devised as means for pouring the oil derived from the press above into tall earthenware recipients.

A completer examination of the area, here overlooked by the terrace

<sup>1</sup> Between the two pillars however was a deposit which does not seem to be flooring.

<sup>2</sup> See *Annual*, vi. (1899–1900), p. 83.

<sup>3</sup> See *Annual*, 1900–1901, p. 24.

wall, showed that it was originally surrounded by good walls of limestone and gypsum such as elsewhere in the Palace form the face of small courts and light-wells and that it had therefore never had an upper storey. The deposit of wall-paintings found here with the scenes exhibiting the female toreadors must have been derived from a room or gallery above the terrace wall with the spout.

This open area, to which the name of the Court of the Oil Spout may appropriately be given, would naturally have been devoted to filling various vessels with oil. It is probable that the short break in the course of the oil-duct that is visible on the upper side of the terrace wall was



FIG. 4.—PROJECTING OIL-SPOUT IN UPPER EAST TERRACE WALL.

occupied by a settling vat or vats, where the impurities of the fluid and its coarser portion were allowed to settle on a bed of water that could be raised or lowered in the manner usual in such reservoirs. Immediately on one side of the place where such a vat would naturally have stood there are in fact remains of a well, suggestive of the need of a water supply. The oil conduit itself showed a curious variation in different parts of its course. At the point where it emerges from the press it is 43 cm. wide and 9 deep, while at the end nearer the spout it is 21 cm. in width and 1.4 in depth, the depth thus increasing as the width decreases. It is probable that the channel was originally lined with cement to prevent leakage at the numerous joints between the limestone blocks in which it is cut, and this

may account for the fact that its present dimensions seem unnecessarily capacious for an oil duct.

The West or Terrace Wall of the Court of the Oil Spout is formed of three courses of fine limestone blocks of an average length of 1·50 m. and height of 50, resting on a projecting plinth below. These blocks show the trident sign, sometimes two on the same block. The South Wall of the Court contains similar limestone blocks (without signs) above a plinth; it is broken by a doorway leading to the 'School Room.' The North Wall of the small Court was of gypsum, two blocks of the lower course only remaining, surmounted by another, 1·34 wide by 1·24 high. It is possible that the Court was open to the East and that the remains of limestone walling here represent another terrace edge. In the middle of the Court was a blind well with traces of a drain leading into it.

The direct relation of the Court of the Oil Spout with the Olive Press above sufficiently explained the character of the chambers found to the East and North of it. On the removal of the great shoot from the previous excavations which had obscured this part of the site a series of magazines containing *pithoi* were brought to light. The jar found in the space immediately East of the Court was of ordinary dimensions, but in the area to the North three magazines were traceable containing *pithoi* larger than any yet discovered. It seems probable that these great jars were filled with oil *in situ* by means of ducts from the oil-spout or by a branch of the stone conduit on the terrace above, of which traces have now disappeared.

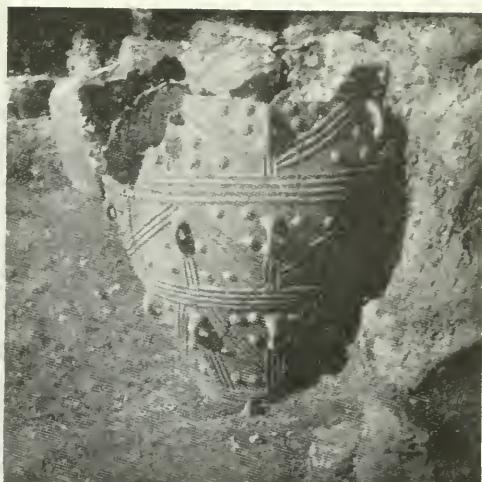
Besides their exceptional size the decoration of these *pithoi* differs in several respects from that of any hitherto found. Their rims had in all cases suffered from too great proximity to the surface, but the bodies of the jars were surrounded by tiers of upright handles placed at unusually close intervals (Fig. 5 *a* and *b*). Fourfold lines of raised ropework arranged horizontally divided the surface into zones, and these were connected by a succession of triple cross-lines of the same kind. The whole thus presented the appearance of large jars bound round by a kind of rope network very realistically reproduced and arranged in a manner suggestive of the means by which they were actually transported from the place of manufacture.

The most characteristic feature, however, of these great jars is supplied by the best preserved of them, where the inter-spaces between the handles and rope-work are decorated with groups of knobs like the studs of metal-work (Fig. 5 *b*). This knobbed decoration is of special interest as it enables us to group this class of *pithoi* with the vases

studded over in a similar manner found in the Corridor of the Bays.<sup>1</sup> These vases, like so many of the earlier Minōan class, betray in their embossed relief and other particulars a distinct indebtedness to prototypes in metal-work, and it is reasonable to suppose that the stud ornament was in this case taken over from the same source. The knobbed decoration may in turn have been transferred to *pithoi* from the example of the smaller vessels. In any case the parallelism in decoration must be taken



a.



b.

FIG. 5.—LARGE *Pithoi* WITH KNOB AND ROPEWORK DECORATION.

as an evidence of contemporaneity and the knobbed *pithoi*, like the vases, must belong to a comparatively early period in the history of the existing Palace.

Of the three Magazines containing the knobbed *pithoi* the Westernmost, containing remains of three jars, was 5·18 by 2·94 m. in dimensions with a floor level about 2·50 m. below the terrace level immediately above it. It opens into another Magazine of the same length but only 2·10 m. wide containing two more jars, and that in turn into a third store room with a floor-level 1·80 m. below that of the two other Magazines, but of which only parts of the wall-lines are preserved. The best preserved *pithos*, Fig. 5 b, stands in this chamber. Between these Magazines and the Court of the Oil Spout an ascending Corridor 1·60 wide, the steps of which however have disappeared, runs from East to West.

<sup>1</sup> *B.S. Annual*, 1900-1901, pp. 85, 86: Fig. 26, 28.

#### § 4.—THE “PENS” OF THE UPPER EASTERN TERRACE.

About five metres West of the Magazines of the Knobbed *Pithoi* is the low terrace wall with interrupted upper courses broken by elongated grooved slabs referred to in the previous Report.<sup>1</sup> A further examination, however, has brought out the fact that these grooved slabs, of which six are preserved, were not, as at first supposed, runnels akin to those of the oil-press. The grooves in fact, though open on the outer face of the wall,

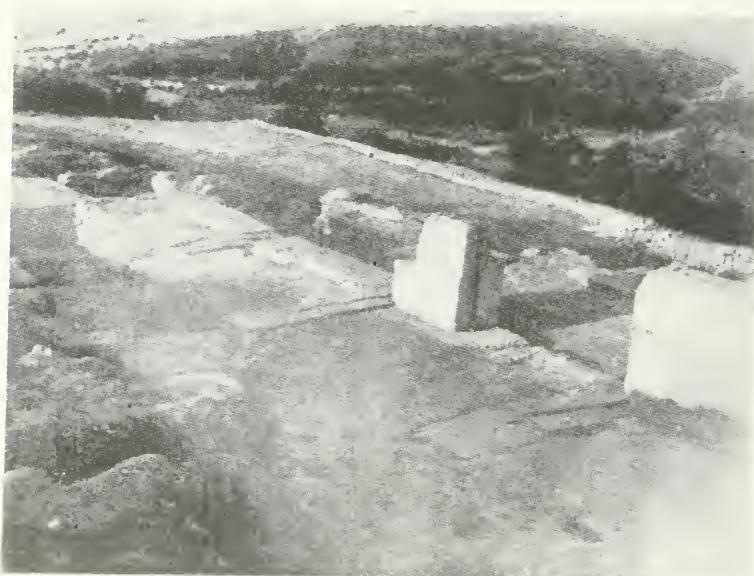


FIG. 6.—GROOVED BLOCKS FOR PARTITIONS.

run in 1·50 m. to square endings. It is obvious moreover from the dowel holes at either end of these elongated grooved blocks that they supported, both in front and at their further extremity, some kind of wooden framework (Fig. 6). It seems therefore possible that the grooves themselves were for sliding wooden partitions by means of which the space above the terrace wall was divided into compartments. What was the purpose of these can only be a matter for conjecture. Their width is only about two and

<sup>1</sup> *B.S. Annual*, 1900–1901, p. 93.

a half metres and their probable depth about the same, which makes them too small for stables, but they may have been pens for some kind of live-stock, or possibly kennels.

#### § 5.—THE TERRACOTTA DRAIN-PIPES BENEATH THE FLOOR OF THE CORRIDOR OF THE DRAUGHT BOARD.

The removal for purposes of investigation of some slabs of the flooring upon which the Royal Gaming Board had rested, resulted in an interesting discovery. Immediately below the flooring at this point, 1·45 m. down, was found a terracotta drain of remarkable construction. (Fig. 7 *a* and *b*.) The drain, of which two sections were found at this

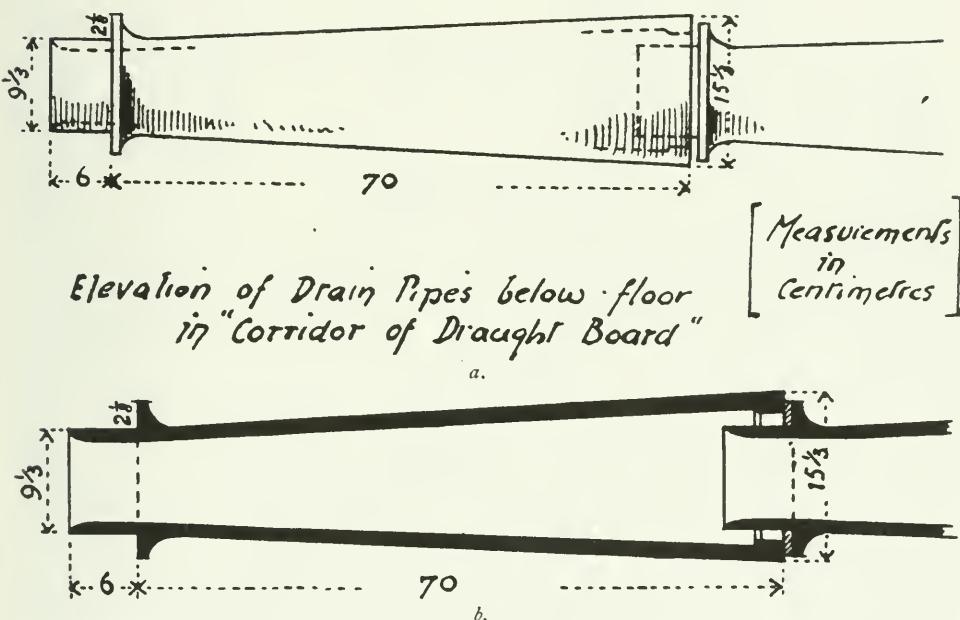


FIG. 7.—TERRACOTTA DRAIN-PIPES.

point, running North-East was broken off at its Southern end by a later wall-foundation, immediately beyond which, however, its course was again struck and three more tubes were found in position socketed into one another. The circumstances of the find show that these drain pipes are at least anterior to the good pavement of Mycenaean date on which the

Gaming Board had rested and that they in all probability go back to the earliest period of the Later Palace.

This indubitable evidence of their great antiquity makes the extraordinarily advanced construction of these terracotta pipes the more remarkable. It will be seen from Fig. 7 *a* and *b* that the mouthpiece of each tube is provided with a stop-ridge, solidly backed behind, which when fixed against the butt end of the succeeding tube afforded effectual resistance against pressure that would otherwise have been likely to wedge the two together to splitting point. On the other hand the inside of the butt end of each is provided with a raised collar which offered a widened surface to the stop-ridge of the tube with which it was connected and at the same time supplied an additional hold for the cement that attached the butt end of the one to the mouthpiece of the other.

The tubes are 76 cm. in length with a diameter of  $13\frac{1}{2}$  cm. at the butt end, and  $9\frac{1}{2}$  at the mouth. Smaller clay pipes of simple fabric, the tubes of which, though socketed into one another, were not provided with stop-ridges, occurred in other parts of the Palace area, namely in a room near the South Propylaea, outside the Northern Tower, and in the Court of the Sanctuary to be described below. On the other hand jointed clay pipes with stop-ridges of very similar construction have been found by Dr. Dörpfeld on an early site explored by him in Leukas.

#### § 6.—REMAINS OF PORCELAIN MOSAIC SHOWING HOUSES OF MINÖAN CITY AND OTHER SUBJECTS.

Immediately North of the basement area in which the remains of the large spiral fresco were found in 1901, another basement chamber was opened out which proved to contain relics of extraordinary interest. The West end of this cellar was partly covered by the slabs of a pavement upon which rested some plain tripod vases like others found in the North-East Magazines. From a depth of about a metre onwards beneath this floor level were found a series of enamelled plaques which had evidently belonged to a considerable mosaic—the material resembling Egyptian porcelain but of the native Knossian fabric.<sup>1</sup>

<sup>1</sup> In this space or on its borders were also found what appear to be large draught-men of ivory, 73 to 82 millimetres in height and 80 to 82 in diameter, and almost exactly answering to the diameter of the circles of the Gaming Table. One type has engraved below a disk surrounded by sixteen rays. Another type shows eight small engraved circles forming a ring. That these actually represent the pieces belonging to the board found only a few metres off, is highly probable.

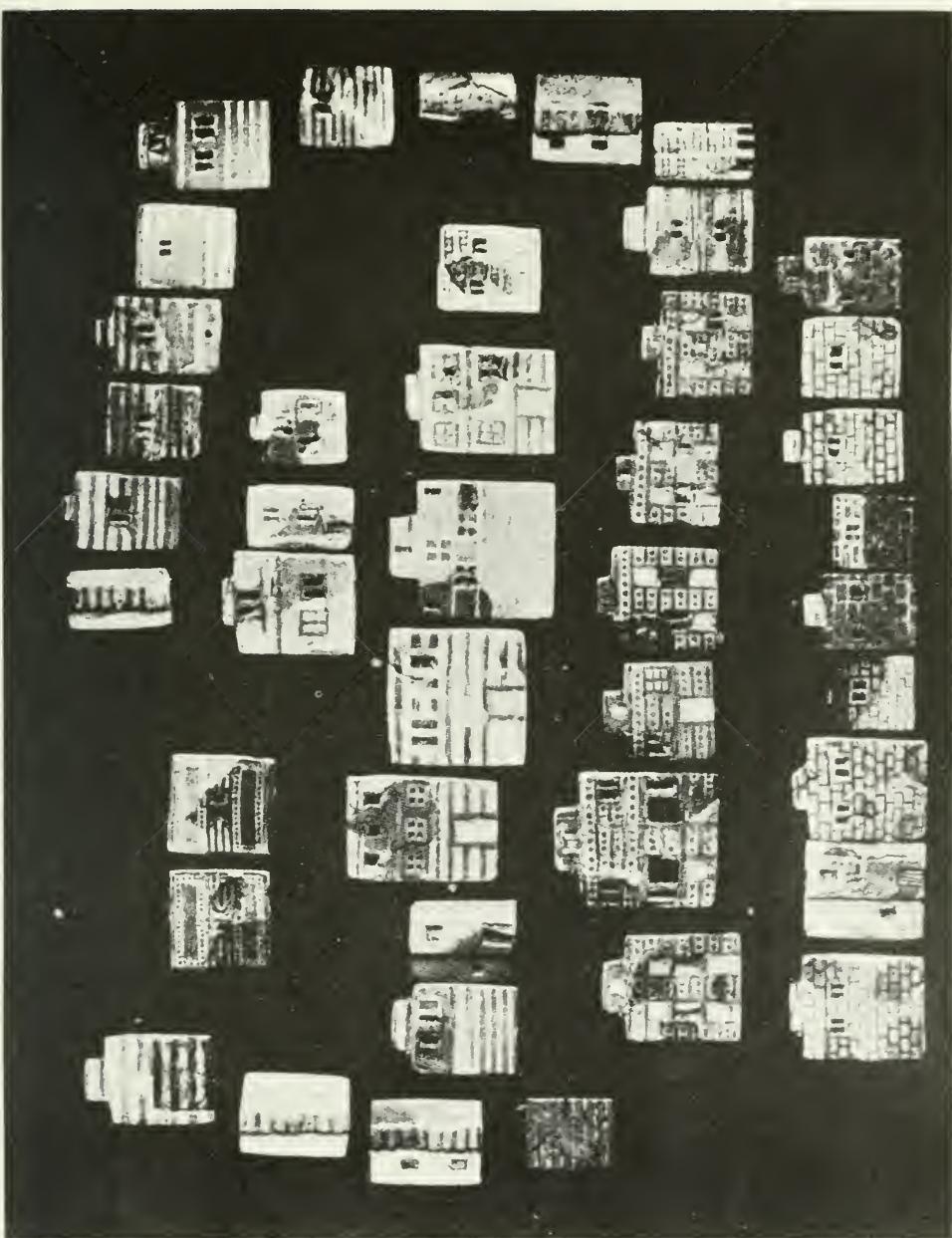


FIG. 8. TABLETS OF PORCELAIN MOSAIC IN FORM OF HOUSES AND TOWERS.

A large number of these porcelain plaques were found to represent houses, towers and other buildings. Owing to the friable nature of the material, and the fact that they had evidently fallen from a room above, the plaques were in a much broken condition. In many cases, however, enough remained to supply a sufficient idea of the whole, and it was possible to reconstitute over forty examples of these façades. Fig. 8, from a photograph, gives a view of a series of these as thus reconstituted by me; certain recurring features in the design making it possible in some cases to complete the construction from comparatively fragmentary evidence. The arrangement as seen in Fig. 8 is an arbitrary one—the guiding principle having been to keep the buildings resembling towers and fortifications in the outer ring.

In order to make it quite clear what part of these reconstructed tablets represents the original fabric, special drawings have been made of characteristic examples by Mr. Fyfe, under my direction, and of these, two typical specimens of houses are given in Fig. 9 *a* and *b*. In a summary Report like the present it is impossible to deal more fully with this extraordinary architectural material.

Fig. 9 *b* represents a class of façade of which several fairly complete examples exist, so that every detail is thoroughly authenticated. The original of this type was obviously of wood and plaster construction, in which the round beam ends in the timbered compartments form a characteristic feature. It will be seen that many of these were quite short, simply laid across the thickness of the wall, a system of construction so ingrained at Knossos that in the great halls of the Palace, as will be shown below, beam courses of this kind are actually found interrupting the stone-work.

On the ground floor are what appear to be two doors, divided by a central panel—an arrangement superficially suggestive of modern semi-detached villas. Above the doors are two double windows filled with bright red pigment, above that again two larger window openings, and finally, what looks like an attic, with a small single window also coloured red. We have here a house or pair of houses with at least three stories.

The façade given in Fig. 9 *a* shows a different structure. The round beam ends are here wanting, and we see horizontal beams, with intervals of what seems to have been plaster-faced rubble. This house has a single door below, and, opening from the first floor, a row of three four-paned windows, coloured red like the others, set in a timber framework, while

the uppermost floor is provided with three smaller windows which show no traces of coloured filling and seem to have been simple openings.

In one case we see two rows of four-paned windows, in another double windows of six panes. In two examples a very curious form of double-window appears, curving in, crescent fashion, on the outer sides. The more tower-like houses show no door below, but sometimes a small attic-like structure above with a small window. Some of these tower-houses, which probably represent outer bulwarks of the town, are constructed of hori-

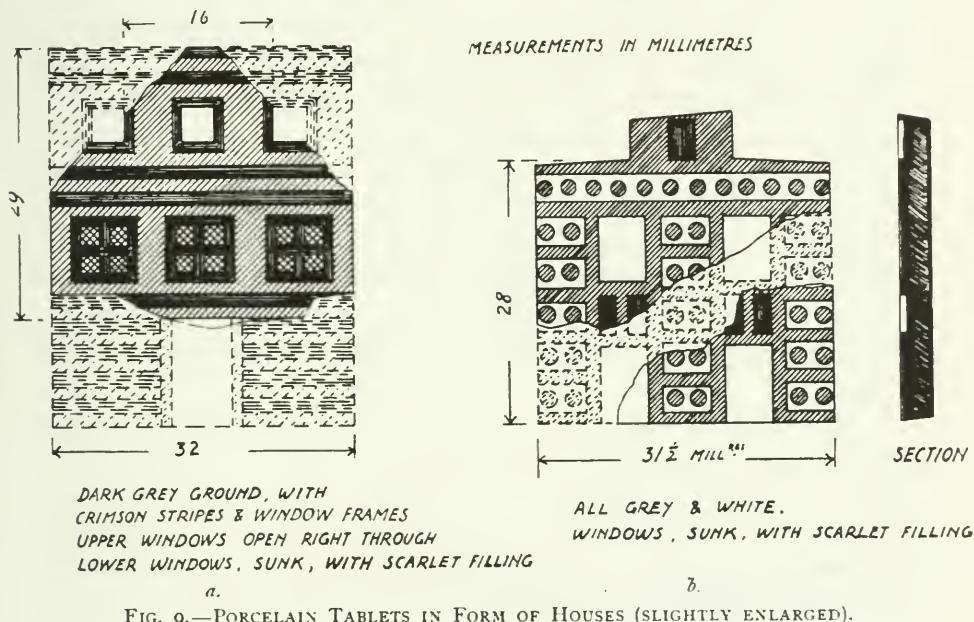


FIG. 9.—PORCELAIN TABLETS IN FORM OF HOUSES (SLIGHTLY ENLARGED).

zontal beams with interspaces of rubble masonry and plaster, like so much of the Palace fabric; while others are of isodomic masonry. Of towers proper there are several varieties, among them a type with a door below, constructed of what appear to be massive upright beams, and greatly resembling a gate visible in the outer wall of the besieged city seen on the silver vase fragment from Mycenae.

The upper, door-like openings, which in certain cases occur above rooms with regular windows, recall a feature repeated in some of the miniature wall-paintings. In these, groups of ladies are seen standing in similar openings, as upon a balcony. In other cases the women seem

to be seated at open windows of a more usual type, and in one instance there is visible a part of a curtain, apparently of light material, perhaps drawn at night as a protection against mosquitoes.

The red pigment in the windows of the mosaic suggests that some substitute for window-glass was in use—perhaps oiled and scarlet-tinted parchment. In the Eastern Quarter of the Palace there will be repeated occasion to notice in the walls of the small courts and light-wells the existence of window openings with the dowel holes for the wooden framework. But that windows of such a modern aspect as these before us should have existed in Minōan Knossos is a phenomenon for which no analogy of classical civilisation could have prepared us.

Unexpected indeed as have been so many of the revelations of this early Cretan culture, the whole appearance of these house façades with their three and even four stories is perhaps the most astonishing. In view of the generally grandiose character of the Palace itself, the indications of upper stories appear natural enough. But in the houses of the mosaic we can hardly fail to recognise the dwellings of the ordinary Minōan citizens. That these should have attained the tall proportions of the houses of a modern street-front points surely back to long previous generations of civic life.

The original physiognomy of these houses is undeniable. Yet the question naturally arises whether there was not here, as in so many other aspects of early Cretan civilisation, an ultimate indebtedness to Egyptian models? As a matter of fact the fundamental elements in these house fronts as illustrated by the typical variety shown in Fig. 9 *b*, do correspond in a remarkable manner with those of the better class of Egyptian houses. On monuments of the XVIIIth Dynasty the evidence is to be found of a well-marked type of house with a lower storey in which, as a rule, three doors are seen side by side, a kind of *entresol* with windows, barred, or with open panels, and an upper storey with an open colonnade in front. These features it will be seen all reappear in the Knossian houses. The room below has often a pair of doorways, though, perhaps owing to the greater inclemency of the climate, there is a greater tendency to reduce these to one. Here again is a first floor with windows, though probably, for the same reason, oiled parchment, anticipating glass, may in this case have filled the panels. The door-like openings of the upper storey, in turn, correspond with the open gallery of the Egyptian type, though the

Knossian system secured greater protection against the Cretan hurricanes. The Knossian attic, again, would have afforded a more efficacious shelter for the roof-top than the mere awning, which seems to have been its Egyptian equivalent.<sup>1</sup> No awning could stand a week against the boisterous winds that sweep this site. The timber framework and beam ends are also Northern characteristics.

It must be borne in mind, moreover, that while the Egyptian houses of which we have the records are isolated villas surrounded by courts and gardens, the gates and towers with which the Knossian house-fronts are associated lead us to suppose that they were ranged together in the actual streets of a fairly compact town, and that they are true examples of civic architecture. The influence of Egypt must be admitted, but there was certainly an indigenous core to this domestic architecture of Minōan Crete. The "Mycenaean" column itself is neither Egyptian nor Oriental, but a true outgrowth of a primitive European type.<sup>2</sup>

The plaques themselves somewhat vary in size, the mean of the houses being about  $4\frac{1}{2}$  centimetres in height and 4 in width. The ground colour representing the plaster or masonry is white or greenish, often with a lilac tinge. The timber is generally coloured brown or brownish green, sometimes with an admixture of crimson. The edges of each piece are slightly bevelled back.

The amount of small fragments found of these architectural plaques shows, that if, as appears probable from their occurrence in the same deposit, they belonged to a single mosaic, a considerable city must have been represented. But the city itself seems to have formed only a part of a larger composition. Other plaques occurred representing a great variety of subjects, though, unfortunately, as will be seen by the examples given in Fig. 10, for the most part, in the same fragmentary state as the houses.

Among the subjects figured on these are men and animals, trees and running water. The men are, in most cases, warriors, dressed in the same short, close-fitting loin-cloths, as that worn by the Cup-bearer and the youths of the Procession painting. These hold either spears or bows of the European and African type. On two pieces are what appear to be curved and crested helmets; in some cases the figures seem to be marching. Others, in a very fragmentary state, are in a half-kneeling

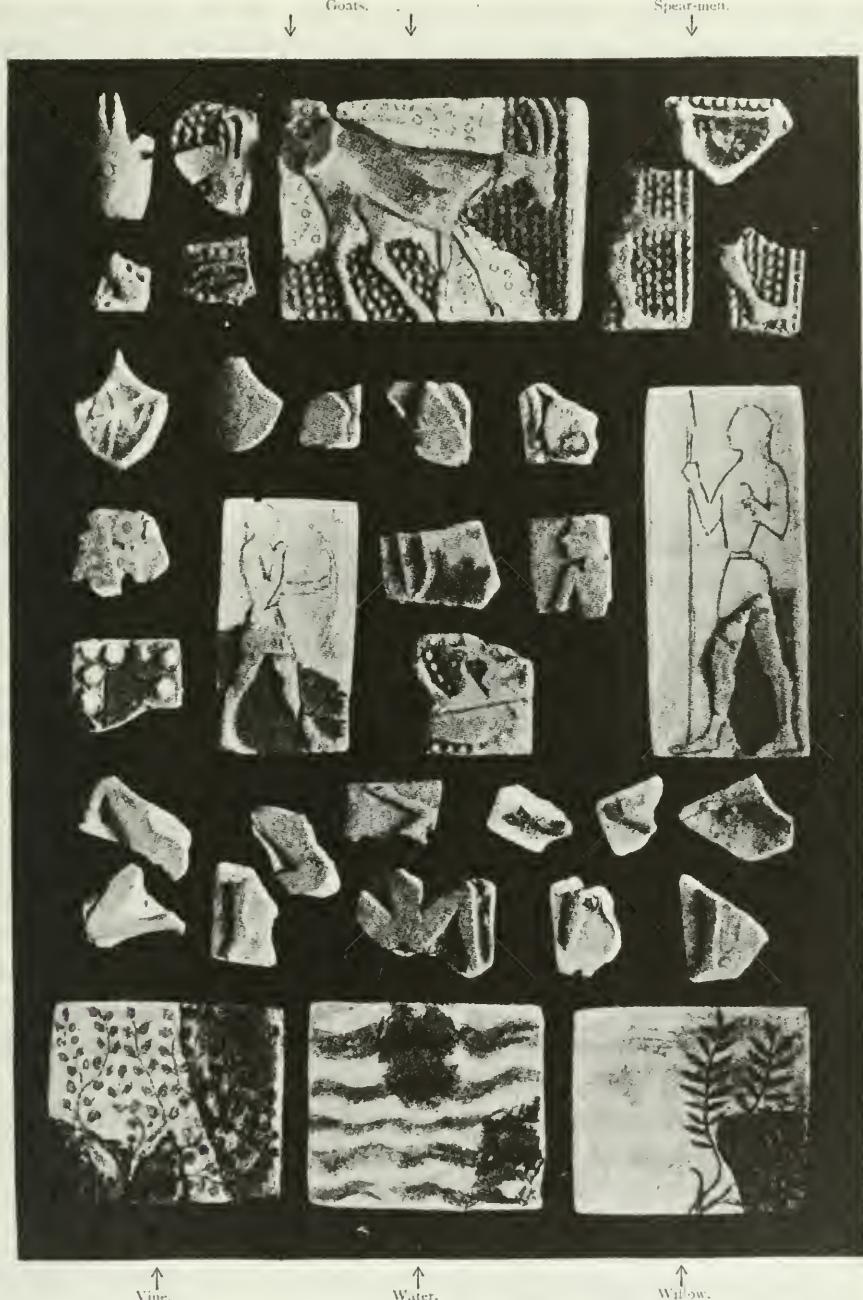
<sup>1</sup> See Chipiez's reconstruction of a Theban house of the Eighteenth Dynasty. Perrot et Chipiez, *L'Art, &c.* vol. 1, p. 283, Fig. 267.

<sup>2</sup> See my *Mycenaean Tree and Pillar Cult*, p. 88 seqq.

pose which recalls that of the bowmen of the siege-scene on the silver vase from Mycenae. In another case there is seen a part of a prostrate figure, or perhaps of two men grappling with one another. The warrior plaques are of very different sizes ; those with the upright figures, measuring respectively about 8 and 5 centimetres in height, must therefore belong to different zones or panels. The skin colour here is of a pale ochreous tint, and the loin-clothing of a greenish hue. In addition to these, however, are other figures with a more swarthy skin colour, some of them exceptionally small, and with hands stretched out as if in the guise of suppliants. The lower part of a larger figure of this dark-skinned type takes a curious squatting and frog-like attitude.

Among the fragments with animal types are parts of several goats with ibex-like horns, resembling those of the Cretan agrimi, and the foot of an ox. Two kinds of trees are represented, one perhaps intended for a vine, the other with willow-like foliage. Some pieces with curving horizontal bands of white and green seem intended to depict running water. The succession of similar types on plaques of the same size and shape, observable in the case of the marching warriors, of the goats, and of some of the houses, points to an arrangement in zones. On the other hand, the great discrepancy in size of some of the figures—specially noticeable in the case of the dark-coloured men—suggests distribution in quite distinct compartments. This kind of discrepancy is best explained perhaps if we suppose that the porcelain plaques formed part of the inlay of a wooden chest, in which case the more diminutive figures might have been set on the smaller sides. That they were made smaller on account of any attempt at perspective rendering in the same field is hardly probable.

It is to be observed that the porcelain plaques found in the Throne Room occurred in association with a mass of more or less carbonised cypress wood, which shows that they were set in a framework of that material, probably, as in other cases, overlaid with thin gold plate. With this analogy before us, we may recognize in the present mosaic the remains of the decoration of a wooden chest, a true *δαιδαλέα λάρναξ* like that of Danaë, and may see in it the remote prototype of the Chest of Kypselos—the porcelain plaques here taking the place of the ivory. The character of the inlay—a native imitation of Egyptian porcelain—suggests that the type of chest to which these plaques may have belonged, was taken from Egypt ; and the probability of this is heightened by the



fact that the painted terracotta *λάρνακες* of the late Mycenaean tombs of Crete were certainly imitated from the painted chests of contemporary Egypt.<sup>1</sup>

The scenes depicted in the present mosaic, however, were not of that mythological class which, according to Pausanias, filled the zones and panels of the masterpiece of early Corinthian carving. We have here, on the contrary, *genre* compositions greatly recalling those of the Miniature Frescoes. The architectural scenes on these, the warriors manning the walls and hurling javelins, supply distinct analogies, though the treatment in that case is of the free pictorial kind. In the present case the character of the material necessitated a more rigid distribution into zones and the breaking up of these into a succession of separate unities contained by the several tablets. The mechanical facility moreover of casting numerous plaques from the same mould seems to have favoured serial groups repeating the same design.

The fragmentary nature of the evidence only enables us to realise vaguely and imperfectly the contents of the whole composition as distributed into the various zones and panels. The warriors and city recall the siege scene of the silver vase, but the warlike episodes do not by any means exhaust the aspects of the record once unfolded in these mosaic groups. The homes of civic life within the walls, the goats and oxen without, the fruit trees and running water, suggest a more literal comparison with the Homeric description of the scenes of peace and war as illustrated on Achilles' shield than can be supplied from any other known source. The division into zones and panels lends additional point to this resemblance.

The scenes here are obviously of real life. The houses before us are those with which the artist was familiar in Knossos itself. The warriors wear the usual dress of the Knossian youths. The art here is historical ; and in the dark-skinned, and—in one case at least—grotesque figures of the vanquished we have perhaps a living record of a Libyan expedition. Nor is it certainly without definite intent that on the back of each of the scale-shaped pieces of enamelled ware, which seem to have formed a kind of decorative border to part of the design, is seen in relief a figure of the sacred Double Axe, the emblem of the tutelary divinity of Minōan Knossos.

<sup>1</sup> See *The Palace of Knossos in its Egyptian Relations*, p. 3 (Archaeological Report of Expl. Fund, 1899–1900, p. 66).

### § 7.—EARLIER ROOMS IN OLIVE-PRESS AREA BENEATH LATER PALACE BASEMENTS.

Throughout the whole space included by the Olive-Press system, the basement containing the enamelled mosaic, that with the remains of the spiral fresco, and the adjoining chamber South of the latter, a whole group of rooms with an earlier floor level came to light underlying those of the Later Palace.

The preceding discoveries have made it evident that the area in question was occupied during the Later Palace Period by a series of basements with a simple earth flooring, which lay about 1·80 metres beneath the level of the ground floor pavements. When, at the time of the destruction of the Palace, these ground floor pavements were partly broken through, the cellarage below became a receptacle for masses of important debris from the upper storeys, and it was in various compartments of this that the remains of the spiral fresco, the painted stucco figures in high relief, and the porcelain mosaic, were found lying on or near the basement floor.

Below this wall-marked line, which lay at a mean depth of about 2·50 metres below the existing surface of the ground, there was a comparatively barren interval. But the walls of the chambers continued to descend, and, about 2·40 metres lower, there came everywhere to light the evidence of a series of earlier floorings, the material of which consisted of hard white stucco with a pale yellow surface. Upon this level, and in the stratum immediately above, ceramic and other remains became once more abundant, all belonging to an earlier Palace building.

This earlier Palace floor level was in its turn superposed on a Neolithic deposit containing fragments of black hand-burnished pottery, stone and bone implements and other relics, which went down with a varying thickness of from 3·20 to 3·60 metres to the virgin soil. The total thickness of the deposit containing the remains of these various periods amounts, therefore, to about 8·50 metres as measured from the surface to the ground.

Nothing could be more complete than the stratification thus exhibited. Evidently the earlier floor level represented the ground-floor rooms of the original Palace, and it was specially interesting to observe that here the main lines of the later Palace were simply superposed on those of the

more ancient building. It was indeed often difficult to determine where the remains of the earlier walls ended and the foundations of the later work, largely composed of more primitive blocks, began.

Painted stucco belonging to the primitive fabric occurred in several chambers, some *in situ*, some fallen. In the room beneath the North-East corner of the Olive-Press room two plaster steps were found going down to the floor of the room, the steps sloping in the characteristic manner of the early steps in the Palace of Phaestos. Near this the early walling was coated to a height of about a metre with the original plain plaster. In the space South of the area of the Spiral Fresco were found parts of a plaster dado belonging to this earlier Period.<sup>1</sup> It was decorated with horizontal bands of red, white, and black and curved streaks descending from this which showed an alternation of colours—black, white and grey-blue, black and white, red, yellow and black. The character of this polychrome decoration differed from that of the Later Palace.

In the North-West corner of this space is a plaster platform which runs under the foundations of the later basement wall and shows that this space and that beneath the room of the Spiral Fresco originally opened into each other. This platform was covered by a compact layer of fragments of 'Kamáres' ware, above which was a heap of over four hundred clay loom-weights, flatter than the later Palace type. Another similar plaster dais of white stucco, with pale yellow facing like the pavement, came to light in the area beneath that of the Spiral Fresco. In this chamber were large pieces of fallen stucco with a pinkish surface, backed by a cement composed of pounded potsherds and small pebbles.

In the South-East corner of this area was found what appeared to be part of a chest of red and yellow stucco. It is possible that this chest had originally contained two interesting relics found near it. One of these is a miniature vase of blue 'porcelain,' with a foot, collar and thimble-like receptacle of gold-plate, which may have contained some perfume as precious as attar of roses (see Fig. 11). The other consists of very elegant fern-like sprays of thin gold plate and wire (see Fig. 12). These were laid on a small flat bowl of plain clay containing some carbonised substance. It is possible that this relic was of a votive character, and that it should be taken in connexion with a series of painted terracotta objects found near this and in the same stratum which relate to a very early cult of the Dove Goddess. These are of such importance and so varied in character that a summary description of them is reserved for the succeeding Section.

<sup>1</sup> See Theodore Fyfe, *op. cit. Journ. R. I. B. A.*, 1902, p. 109, figs. 1, 2.

The 'Kamáres' pottery found in this area included a series of miniature amphoras, cups, and oenochoae, in a perfect condition, and remains of several



FIG. 11.—SMALL VASE OF PORCELAIN AND GOLD (1).

large vases which it has been possible to put together. The smaller vessels for the most part display a plain white decoration—such as spirals, concen-



FIG. 12.—GOLD SPRAY IN FLAT BOWL (1).

tric circles, herring-bone pattern and sprays,—on a black or dark grey ground, and range from about 6 to 8 centimetres in height. The large

vases show a greater variety of design and colour—including, besides black and white, orange-red, and crimson—and are the finest of the class that have yet come to light, some approaching 60 centimetres in height. Among the decorative motives are eyed disks combined with leafy sprays (Fig. 13 *a*), conventional palm trees, together with other patterns similar to those already mentioned. The specimen given in Fig. 13 *b* shows a

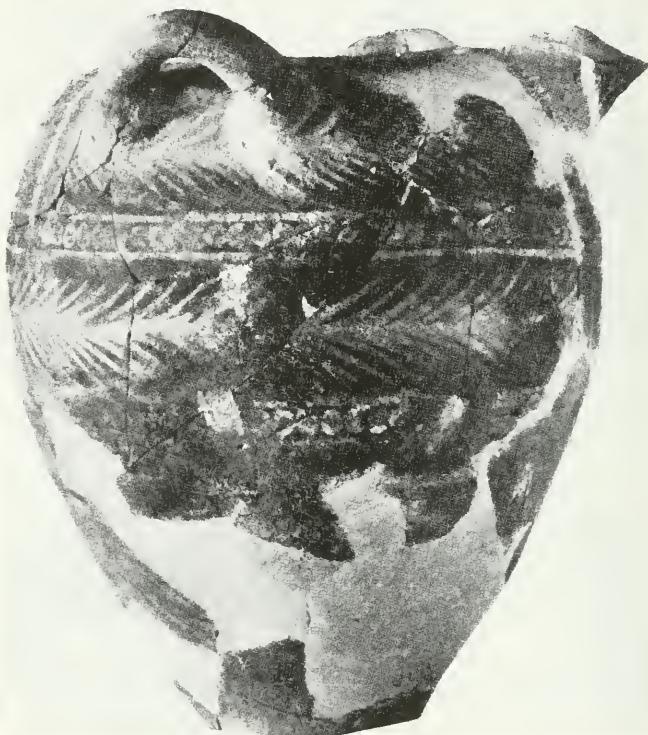


FIG. 13 *a*.—PAINTED JUG (1).

spouted vessel of a typical form. It is 58 centimetres in height and has a dark grey ground with designs in white and orange-red showing dull crimson spots on the orange. These vessels from their form and style seem to belong to rather a late class of what may be called the 'Minōan' Ceramic style and it is observable that there did not occur in this series of chambers any of the finer egg-shell fabrics with their delicate imitations of metallic forms such as were contained in some of the magazines on the lower Eastern Terrace (see below, p. 117 *seqq.*). On the other

hand there was nothing of the purely transitional class which characterises the later Palace.

A comparison of levels shows that the ground floor level of the early chambers above described was the same as that preserved later in the Hall of the Double Axes and its connected system to the South and in the



FIG. 13 b.—PAINTED JUG (1).

'School Room' and adjoining chambers to the East. It was only during the period of reconstruction that immediately preceded the Mycenaean Period proper, and to which the Palace in its existing shape is mainly due, that these more Northern ground floor rooms, half choked with debris, became the basis of later cellarage areas underlying a terrace level which formed the new 'ground floor' in this region.

### § 8.—MINIATURE SANCTUARY OF DOVE GODDESS IN PAINTED TERRACOTTA, AND ACCESSORY OBJECTS.

In the early chamber, underlying the later cellar with the remains of the Spiral Fresco, and which contained in addition to fine, later Minōan vases the golden fronds and small gold and porcelain bottle, there were also brought out a series of painted terracotta objects of great religious interest.

These terracotta relics consisted of the remains of a miniature Sanctuary including a Pillar Shrine with sacred doves, altars with their ritual horns, a kind of portable seat for a divinity, and other accessories. The remains of some of these had been a good deal broken, but in many cases it has been possible to fit together the pieces, and with further study additional reconstruction may be eventually possible. The objects as they stand, however, quite suffice to throw an altogether new light on the pre-Mycenaean cult of the 'House of Minōs.'

The original surface of the terracottas, which varies from buff to pale brick-red, has been coloured black, white, and red—the characteristic colours, that is, of the early vases with which they were associated.

Of special importance is a group of three columns (Fig. 14), the round, rectangular profiled bases of which are ranged along one edge of an oblong platform. The columns themselves show no tendency to taper. The capitals are square and leave a small interspace between each as if they were pieces of an interrupted architrave. Across each of these square capitals are laid side by side two sections of round beams, their circular ends showing in front, and again upon each of these is perched a dove with closed wings. The doves are black with white spots, the beam-sections, capitals and columns are red, their bases black, and the platform upon which they stand white.

It will be seen that here each column is a separate religious entity. Instead of the three combining to support a common entablature, the whole superstructure is in each case separately rendered by the two sections of round beams on which the sacred birds are seated. By a kind of architectural shorthand each column by itself is thus indicated as a 'Pillar of the House.'<sup>1</sup> We have here, therefore, the most ancient known example of the class of sacred pillar seen on the Lions' Gate at Mycenae and on a

<sup>1</sup> I can only refer to what I have said on the subject of the sacred pillar exhibited as performing structural functions and a 'Pillar of the House' in my *Mycenaean Tree and Pillar Cult*, p. 45 seqq. (*J.H.S.* vol. xxi. 1901, p. 143 seqq.)

series of Mycenaean gems and signets.<sup>1</sup> The trinity of baetylic columns, moreover (so popular in Semitic cult), recalls the fact that in the case of the gold shrines of Mycenae, and again in the Temple Fresco from the Palace of Knossos, we find a triple group of pillar cells. There can be little remaining doubt that the miniature dove shrines of Mycenae refer to



FIG. 14.—PAINTED TERRACOTTA PILLARS WITH DOVES; BELONGING TO EARLY SHRINE.

the cult of the same Goddess that we find at Knossos, and that there, as here, we have to recognise an example of the setting up of trinities of baetylic pillars representing the same divinity.<sup>2</sup>

The conclusive evidence now before us that the pillar-cult of a Dove Goddess<sup>3</sup> goes back, in Crete at least, to the *prae-Mycenaean* period is of

<sup>1</sup> See *op. cit.* p. 58 seqq.

<sup>2</sup> In the monograph above cited (p. 42) I had already ventured to suggest this explanation of the triple pillar cells of the Mycenaean dove-shrines surmounted as they are by a single altar.

<sup>3</sup> As pointed out below (pp. 98, 99) the dove is primarily the image of the divine descent and of the consequent possession of the baetylic column by a spiritual being. This is not necessarily a female divinity, for the dove also appears as the "Messenger" of Zeus, but the evidence seems to show however that it had early attached itself as a special attribute of a Goddess in the Aegean lands.

first-rate importance in its bearing on the origin of the cult itself, and its relation to the parallel religious phenomena presented by the worship of the Syrian Semiramis<sup>1</sup> or the Phoenician Astartê. The crude view that the little dove shrines of Mycenae were mere import articles from Phoenicia has already almost died a natural death. The divine associations of the dove were a common heritage of primitive Greece and Anatolia, and it is a significant fact that the principal centre of the cult on the coast of Canaan was 'Philistine' Askalon, whose mythical founder Askalos was the brother of Tantalos the founder of the Phrygian dynasty and father of Pelops. We are thus led to an ethnic quarter that had a very intimate relation with Minoan Crete. A Palace shrine, described below, shows us a later stage in the local cult of the Dove Goddess in association with that of the Double-Axe (*see* below, pp. 100 seqq.) and makes it probable that the Cretan Rhea in her earlier aspect was also a 'Lady of the Dove.'

It is possible that there are here parts of more than one shrine, since there are columns of varying sizes. A characteristic of the walls of these edifices is the chequer-work of black and white indicating either actual masonry or a stucco coating in imitation of it. Identically coloured chequer-work occurs in the Temple Fresco. The stonework is broken at intervals horizontally by square-cut slightly projecting cornices, upon the white ground of which is painted a series of red disks which seem to represent the round wooden beam ends of Knossian wall-construction reduced to a mere decorative reminiscence. In one case what appear to be four somewhat narrow window-openings are seen above a substructure of the kind described above.

A part of a square altar with similar chequers surmounted by a plain cornice shows a pair of sacral horns rising above one face and part of another on a second face imperfectly preserved. The square altar recalls one constructed of isodomic masonry, with 'Horns of Consecration' above it, seen on a steatite pyxis from the site of Knossos,<sup>2</sup> and the presumed altar bases found in the Palace courts probably belonged to similar structures. Four other examples of miniature sacral horns were also found.

A base with incurving sides recalls another familiar adjunct of

<sup>1</sup> M. Salomon Reinach has well shown, *La Sculpture en Europe avant les influences Gréco-Romaines*, p. 561 seqq. (*Anthropologie*, VI.), that there is not the slightest reason for deriving the Dove Goddess from Babylonia.

<sup>2</sup> *Myc. Tree and Pillar Worship*, p. 103, Fig. 2.

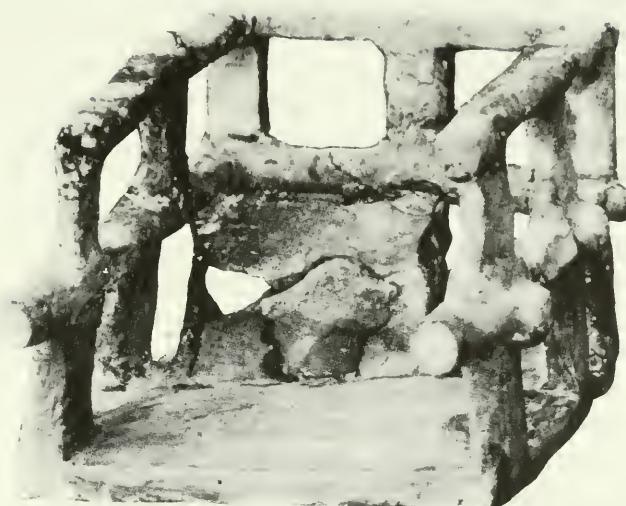
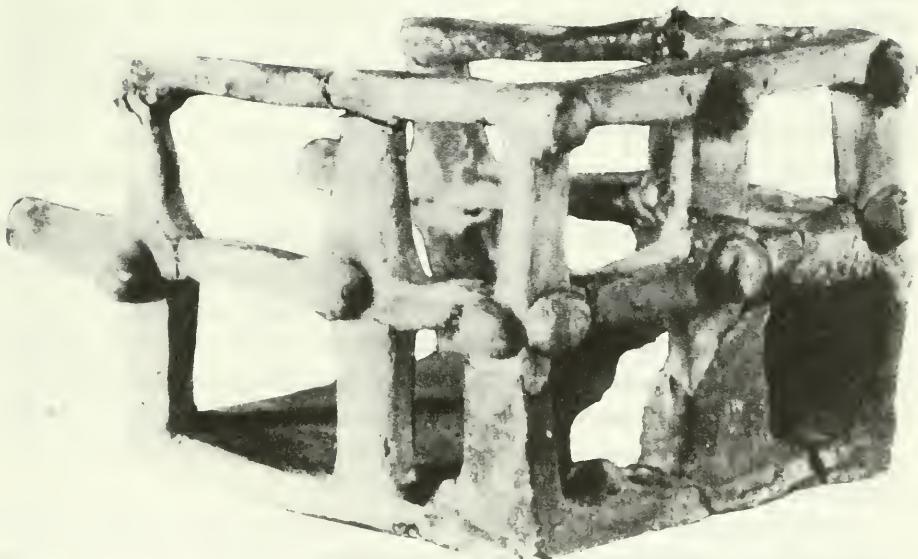
FIG. 15 *a.*

FIG. 15.—PORTABLE SEAL OF DIVINITY IN PAINTED TERRACOTTA (SLIDES RECORDED).

Mycenaean religious furniture. The present example resembles a base, with the sacral horns above it, before a triple group of sprays, engraved on a crystal lentoid found in the Idaean Cave. The scene on the gem connects itself with the cult of a group of sacred trees, and a female votary is seen before the base blowing a large triton shell,—apparently a ritual function resorted to with a view of calling down the divinity. It is interesting to note that among the accessory objects found with the remains of the terracotta Sanctuary were parts of three miniature triton shells, the clay spires of which are painted alternately red and white.

A remarkable object remains to be described (Fig. 15*a* and *b*). At first sight it looks like a miniature car with a seat at the back, in front of which are visible what seems to be the roughly modelled extremity of a seated figure. The open wooden framework and joints are clearly rendered and there project in front what look like truncated shafts. On the other hand there is no trace of any attachment for wheels, and it may well be doubted if wheeled vehicles existed in Knossos in the early period to which these remains belong. The shafts of a car moreover would be attached to its floor, and not, as here, to the middle of the seat.

On the whole therefore, it seems safe to regard it as a kind of palanquin or sedan chair, and this view is confirmed by the traces of broken off shafts behind, answering to those in front.<sup>1</sup> The Priest Fresco referred to in the previous Report seems to connect itself with a figure borne aloft in some kind of chair, and we have here perhaps the *sella gestatoria* of a divinity or priest.

#### § 9.—FURTHER DEVELOPMENTS ON THE QUADRUPLE STAIRCASE.

The ground-floor walls and piers of the area that includes the Room of the Olive Press and the Corridor of the Bays give, as already noticed section by section, the outline of a great Megaron above, the plan of which seems to have been practically identical with that of the great upper hall of the Palace of Phaestos. It is probable that the Quadruple Staircase discovered in 1901, besides leading to the Central Court immediately South of this hall, communicated with the Megaron directly by a doorway in its South wall.

It has already been noticed in the last Report that a block by the third landing of this staircase showed the outlines of the ends of three steps

<sup>1</sup> The breaks are wrongly restored as knobs in Fig. 15*b*.

ascending North, and supplied the evidence of a fourth flight of stairs. Another similar block originally found above the second landing proved on examination to bear the marks of the ends of three more steps belonging to the upper end of this fourth flight where it reached the level of the Central Court. At the cost of much labour this important block has now been replaced in the position that it had occupied previous to its fall. (See Fig. 23.)

The leaning position of the thick rubble wall that formed the division between the upper staircases involved a far more difficult problem. It had heeled over to such an extent above the third flight as to threaten the destruction of both the stone stairs and the parapet beyond. It was impossible to prop it up adequately and it became necessary to resort to heroic measures. I therefore had a deep incision made at a low level on either side, wedges being at the same time inserted in the slit on the side to which it leaned. The wall was at the same time cut across transversely at the point where the window opening between the two staircases lessened the amount of cutting necessary. The whole mass was then cased with planks on either side, and bound round with ropes so as to prevent its disintegration. A wooden framework firmly buttressed against the inner terrace was now set up to act as a stop, its face answering to the original position of that of the wall on this side. Sixty men, harnessed by ropes to the plank-encased wall-section, were now stationed on the terrace above the inner staircase, and at a given signal the tug of war began. There was a moment of great suspense, but the whole mass moved homogeneously and the wall righted itself in its original position. Stones and cement were ready to fill up the wedge-shaped opening along the outer staircase, and the work was complete.

An interesting light on the former decoration of the Quadruple Staircase seems to be thrown by a plaster fragment which had fallen into the adjoining 'Court of the Distaffs' (see below, p. 63 *segg.*) apparently from one of its upper walls. It represented part of a brilliantly coloured palmette frieze.

## § 10.—CONTINUED EXPLORATION OF THE EAST-WEST CORRIDORS : THE ‘PERCENTAGE’ TABLETS.

The Lower Corridor leading Eastward from the foot of the Quadruple Staircase and the North end of the Hall of the Colonnades had only been very partially explored in 1901.

The doorway leading into this passage from the Hall of the Colonnades was now opened (see p. 2, Fig. 1); the carbonised remains of its original wooden jambs being as far as possible protected by the solid wooden framework that it was found necessary to insert for its support. The doorway opening from the Corridor to the Hall of the Double Axes was at the same time cleared and supported with masonry as well as woodwork.

The excavation of this Westernmost and finely paved section of Corridor was a work of exceptional difficulty. This was due to the fact that the upper tiers of masonry belonging to this section of the light area of the Hall of the Double Axes had subsided a good deal in the direction of the doorway communicating with the Corridor and gave rise to a serious thrust on that side. The cause of this subsidence was discovered to be the original existence of a large double window with wooden framework, which had been introduced at this point with the object of lighting the Corridor from the open area at the end of the Hall of the Double Axes (see Fig. 21). This opening had been filled with fallen rubble, forming a very insecure support, and it was found advisable to support the wall on the inner or Corridor side by flat brick buttresses arched together.

The Lower East-West Corridor itself was excavated from above, the remains of the steps and pavement of the Corridor above it being carefully supported in their original position. At the same time the abundant fallen fragments of the upper pavement were collected and reconstituted at their former level, it being necessary in order to do this to build a solid timber framework from one end of the lower Corridor to the other with a platform above by means of which both the existing and the reconstituted parts of the upper pavement were maintained in position (Fig. 16). The pavement of the Upper Corridor was about 4·20 metres above the floor of the lower, its height representing that of the upper floor throughout this quarter of the Palace. The Eastern section of the lower Corridor, from the door of the Hall of the Double Axes onwards, showed no traces of

the fine gypsum paving that had continued to that point. The walls, however, had been provided with a similar casing of gypsum plaques.

The East end of this Lower Corridor is cut short in its direct course by the substructures of the stairs that form the continuation East of the Upper Corridor. Thus diverted, the lower passage opens on its North side on a small rectangular area leading to the 'Room of the Wooden



FIG. 16.—VIEW IN LOWER EAST-WEST CORRIDOR (LOOKING E.).

Posts,' and thence to an Eastern terrace edge. The gangway between this small area and the room beyond is flanked by a pillar originally of timber and rubble construction supporting a large gypsum block above, belonging to the upper storey, and which had been visible above the level of the ground on the East slope before the excavation began.<sup>1</sup> The pillar rested

<sup>1</sup> This block was maintained in the position in which it was found by means of wooden props, till the disintegrated pillar that had once supported it could be replaced by one of stone. This has now been done, and the block is thus permanently fixed at the level at which it was found.

on a square base rising from a breastwork or balustrade, the upper part of which consisted of flat gypsum slabs. Beneath this gypsum coping was a break of 20 centimetres between it and the masonry below, backed by a core of plaster and rubble, originally contained in a timber casing, a form of construction common in the Palace, and well illustrated by the Throne Room and by the bath-chamber to be described below.<sup>1</sup> The space above the gypsum slabs, between the pillar and the wall at the other end of the breastwork, had been left open as if to give light to the Room of the Wooden Posts. This circumstance, and the necessity of lighting the East end of the lower Corridor, makes it probable that the smaller rectangular area in question had served as a light-well, and was entirely open above. It is to be borne in mind that it was on a higher stratum of this area and the adjoining space to the West of it that the deposit of the painted high reliefs in *gesso duro* was found in 1901, and they may well have formed part of the decoration of an upper gallery or portico connected with the great Eastern Megaron and overlooking this light area.

The Lower East-West Corridor thus cleared, and with the flooring of the Upper Corridor replaced above, forms an imposing gallery—about 2 metres in breadth and 4 in height (Fig. 16). Its length is 14 metres or, adding the Northern arcade of the Hall of the Colonnades, which is practically its continuation, 23 metres. Only fragmentary remains, and these in a very much burnt condition, were found of the elaborate painted dado which seems to have adorned this gallery above the wainscoting of gypsum slabs. Its design was characterised by an oval beading, found elsewhere in the Palace decoration, and which recurs in some of the ceiling patterns of XVIIIth Dynasty Egypt.

The Upper East-West Corridor, which seems to have had the same internal dimensions as the Lower, attains, together with its staircase and the section corresponding with the North Gallery of the Hall of Colonnades and the second landing of the Quadruple Staircase, a length of 40 metres. The steps up from the lower terrace level were originally twenty in number,<sup>2</sup> of which fifteen were preserved, while the missing five—which had bridged over the entrance of the lower passage—have been reconstructed. The view from the West end of this Corridor looking along the upper Gallery of the Hall of the Colonnades towards the third flight of the grand Staircase is one of the most striking in the building (see Fig. 17).

<sup>1</sup> See p. 52, 53 and Fig. 27.    <sup>2</sup> Not fifteen, as stated in *Report B.S.A.* vii. 1901, p. 99.

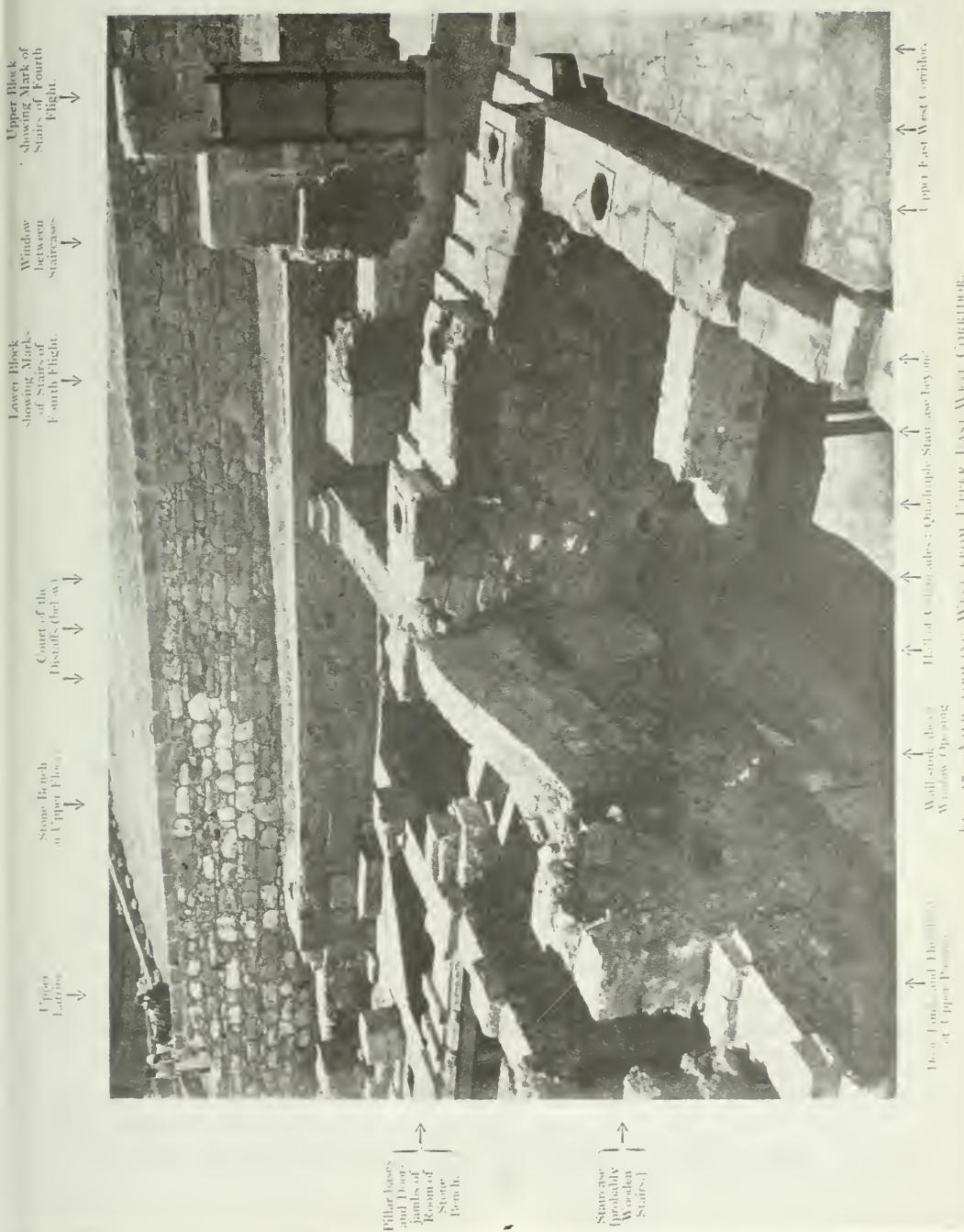


FIG. 17. N.E.-W. LOOKING WEST FROM UPPER EAST WALL CORRIDOR.

Draught and the  
Archaeological  
Survey of Greece.

Height of Corridors : Quadruple Stair also very high.

Top East-West corridor.

Extensive remains of deposits of inscribed tablets and seal impressions were found, partly above the pavement level, along the line of this Upper Corridor from the head of its Eastern Staircase to the point where it enters the Gallery of the Hall of Colonnades. It seems probable therefore that there had originally existed above it some kind of elongated chamber, flanking, and on the same level with, the Great Megaron above the Olive Press area, and that this had been used for the storage of these clay archives.

With the falling in of the floor of the upper East-West Corridor large masses of tablets and seals belonging to the same series as those found in 1901, above its floor level, had been precipitated into the Corridor below. During the continued exploration of this lower stratum, which resulted in the clearing out of the Lower Corridor, great numbers of inscriptions were found, raising the total number from this deposit to over 450, more than a hundred of which are practically perfect. This is the largest hoard discovered. The tablets exhibit formulas the general purport of which is very uniform, and the great majority of them present figures referring to three different items of account, the total of which when added together amounts to 100. It appears, therefore, that they relate to percentages, and they thus supply a striking proof of the prevalence of the decimal system in Minoan Crete. From the fact that the bulk of the deposit extended along a line of about ten metres, it is probable that the tablets were contained in a series of chests. Among the seals found with them were several impressions of what we are led to regard as having been a royal signet, exhibiting a seated Goddess offered a cup by her attendant, of which a counterfeit matrix in clay was found in 1901 in a room above the South Terrace.

#### § 11.—GOLD PENDANT IN FORM OF A DUCK.

About a metre below the floor level of the Upper East-West Corridor were found a part of a thin silver blade and a few articles of jewelry. These consisted of two globular beads, one of glass, the other of solid gold, and a gold filigree ornament in the shape of a miniature gold duck (Fig. 18). It was perforated to be used as a pendant, and evidently belonged to the same necklace as the beads.

Like the small gold lion found in 1900, the present jewel supplies an interesting example of granular decoration of gold work, though in this case

the grains are less microscopic than those of the gold lion. Both the lion and the duck are constructed in the same manner by means of two thin plates welded together above and below, the amount of precious metal employed being thus economised to the greatest possible extent.

The duck as a bead or pendant of 'Mycenaean' fashion in Crete was already known to me from two examples seen in the East of the island. One of these was found some years back at Palaeokastro. It is of red cornelian perforated longitudinally (Fig. 19), and shows on its lower face a rude intaglio of a ship. Another specimen of a similar cornelian bead also came under my notice in the same Cretan region. But these duck

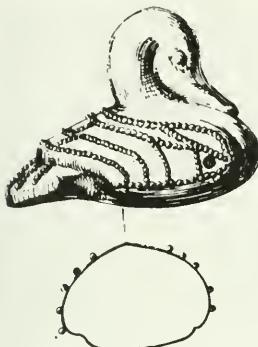


FIG. 18.—GOLD PENDANT IN FORM OF DUCK (1).



FIG. 19.—CORNELIAN DUCK BEAD (?) (2).



FIG. 20.—EGYPTIAN DUCK BEAD (?) (3).

beads are simply an imitation of contemporary Nilotic types. There is in the Ashmolean Museum<sup>1</sup> a bead of this form also of red cornelian (Fig. 20), which might have stood as the prototype of that from Palaeokastro, with a cartouche below containing the name of Amenhotep III. (c. 1400 B.C.). The gold pendant bead must also be traced back to the same class of Egyptian models.

#### § 12.—THE HALL OF THE DOUBLE AXES AND ITS SOUTHERN PORTICO.

In the doorway leading from the Lower East-West Corridor to the Hall of the Double Axes was part of a steatite vase presenting a variety of the usual 'caliciform' type with a double series of petals. As already

<sup>1</sup> Fortnum Collection.

noted, the former existence of a large window, opening from the light area of the Hall into the Corridor, now explains the appearance of collapse that characterises the upper courses of limestone masonry belonging to the section immediately to the right of the doorway on entering (Fig. 21). The whole upper part of the wall has only been saved from utter ruin by the fallen materials from above that had found their way into the aperture.

The horizontal cavity which runs along the West and South sides of the light area of this Megaron between the fourth and fifth courses of masonry was wrongly interpreted in the previous Report.<sup>1</sup> This gap in



FIG. 21.—VIEW IN HALL OF DOUBLE AXES SHOWING COLLAPSED WINDOW OFF LIGHT AREA.

the masonry, as there noted, had been partly filled with coarse lime and terracotta cement in which were visible a succession of round sockets originally occupied by sections of wooden beams. It was suggested that these beams had projected into the end of the Hall, where they had formed the base of a kind of raised wooden platform.

<sup>1</sup> *Report, &c.* 1901, p. 113.

But the examples of construction since supplied by the porcelain houses and miniature shrine, and the further evidence afforded by neighbouring rooms has now made it clear that the round sockets in question contained nothing more than short sections of beams answering in length to the thickness of the wall. What we have here to deal with is, in fact, merely an architectural survival derived from the old rubble and timber construction, a regular feature of which was the laying of courses of short round beams at intervals in the walls, the ends of which were visible in the face of the building separated by plaster-covered zones or panels.

The round beam ends so much affected by the Mycenaean builders were translated into stone or plaster in the shape of rosettes and coloured disks which are their decorative survival. It is obvious that the wooden beam ends thus arranged symmetrically along the walls of the light area of the Hall of the Double Axes were masked by ornamental features of this kind. Its prominent position makes it not improbable that the surface of the cavity in which the round beam ends lay was covered, in this case, with decorative reliefs in metal-work, representing rosettes, with or without connecting spirals. These, like all other objects of metal on which the occupants could lay their hands, were doubtless removed at the time of the destruction of the Palace.

Nor is direct evidence wanting as to the general character of the design here exhibited. The band formed round the light area by the gap between the fourth and fifth courses of masonry was in fact continuous along the interior walls of the Hall of the Double Axes immediately above the gypsum slabs (almost exactly 2 metres in height) which formed their lower lining. There are here, indeed, no traces of round beam ends, but there are visible in places the sockets of horizontal beams which formed the backing of the plaster along this zone.

The same system of construction is continued uninterruptedly by a small passage, to be described below, to an inner hall and a bath chamber lined to the same level by gypsum slabs. But here, as will be shown in Section 15, the space immediately above the groove left by the horizontal beams is still filled in part with a painted frieze of spirals and rosettes. The intensity of the conflagration seems to have destroyed the frescoes in the body of the Hall of the Double Axes, but near its Southern Portico portions of painted frieze were found consisting of spirals and

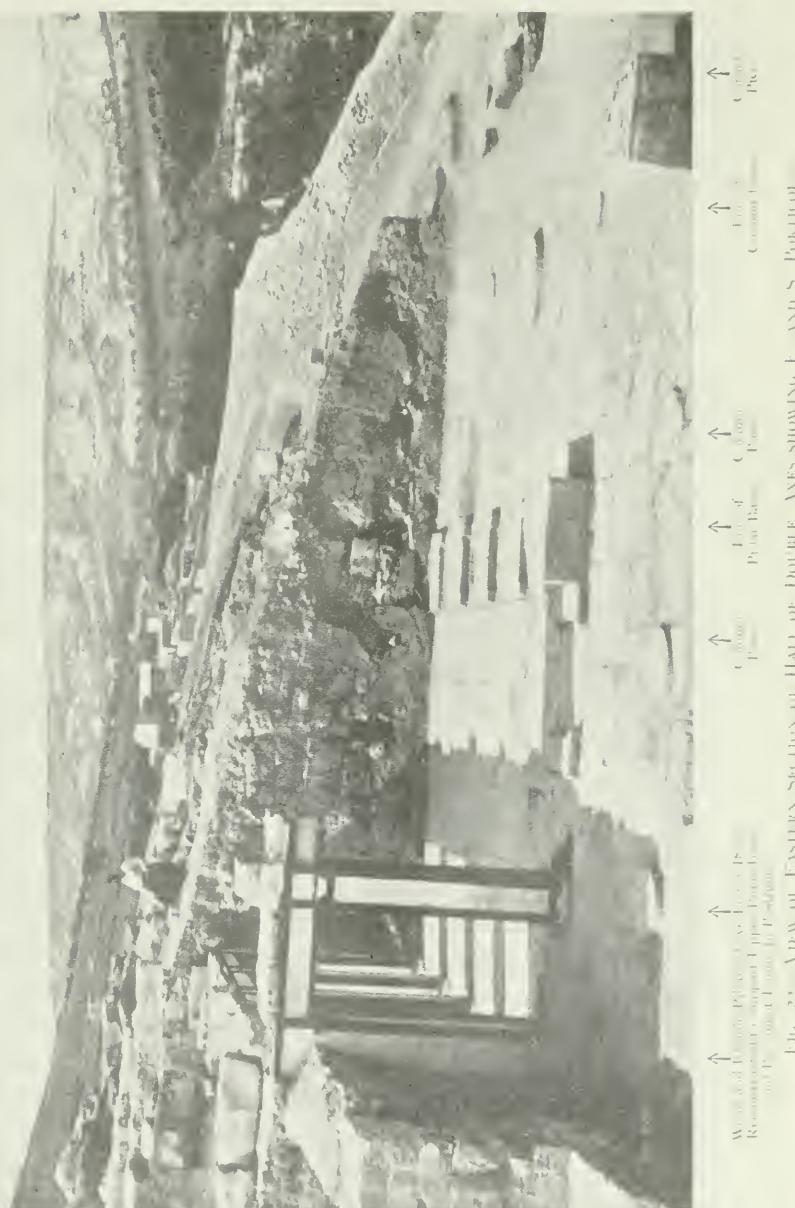
rosettes and answering exactly to that in the adjoining bath-room. There can be little doubt, therefore, that this identical design followed the same zone in both rooms, and it is reasonable to suppose that, what is practically its continuation, the decorative band, namely, *ex hypothesi* of metal work that once masked the gap in the masonry of the light area, exhibited a closely parallel design.

Analogy might lead one to suppose that the gypsum slabs that originally lined the whole of the interior walls of the Hall of the Double Axes were coloured. But the corrosion of the surface on these lining slabs here and elsewhere has obliterated the evidence of this. These inner walls were divided into a succession of bays by fine upright posts of wood, between which was stone and rubble work, the whole surface being covered with a clayey plaster against which in turn the gypsum lining slabs were applied to a height of two metres.

Further exploration of the Eastern end of the Hall gave rise to an interesting development in the shape of a second Portico facing South (Fig. 22). This Portico, at right angles to that to the East, consisted of a massive corner base of limestone 1·10 metres square, common to both colonnades, three round column bases (.70 in diameter) and a pilaster in the wall-line to the West answering to the corner pillar.<sup>1</sup> Near the bases were masses of carbonised wood representing the remains of the pillars. Stone pavement extended to the outer line of the Portico, beyond which was a rectangular area about 4·30 metres wide and over 11 in length with a cement floor.

Above the level of this open space, especially along and in part overlying the good limestone courses that formed the lower part of its Western boundary wall, were found quantities of fallen stucco with fresco designs. This deposit, which also extended into the space beyond the wall, exhibited designs of fish and a female figure, described below, and it probably belonged mainly to the 'Queen's Megaron,' excavated on that side. A piece of bas-relief in coloured *gesso duro* was, however, of a character which points to a more public position, such as an open gallery. It consisted of a man's thigh life-size with the edge of a brilliantly coloured loin-cloth. With the plaster fragment were found fragments of painted Mycenaean pottery of the finest Later Palace style. About two metres beyond

<sup>1</sup> The spaces between the columns were 1·64 and 1·60 m., between the East column and pillar 2 m., between the West column and pilaster 1·98 m.



↑  
W. W. f  
N. N. f

↑  
C. C. f

↑  
W. W. f  
N. N. f

↑  
W. W. f  
N. N. f  
C. C. f  
R. R. f  
B. B. f  
M. M. f

↑  
C. C. f  
C. C. f

↓  
C. C. f  
C. C. f  
C. C. f  
C. C. f  
C. C. f

FIG. 22. VIEW OF EASTERN SPECIMENS HALL, OF DOUBLE AXES SHOWN IN FIG. 21, AND S. PORTION OF

the Northern column base of the East Portico of the Hall of the Double Axes is a curiously cut limestone block on a stepped pedestal, which seems to have been one of an outer line of piers in connexion with a broad line of steps descending East, that has now disappeared. The course of a large stone drain runs in front of the line.

The Hall of the Double Axes, with its two-fold Portico, formed a spacious chamber which, excluding the rectangular court to the South, embraces an area of somewhat over 250 square metres. It has the appearance of a large reception room, the post of honour in which, perhaps, marked by a movable throne, was probably against the North wall facing the middle of the Southern Portico and approached by the eleven openings between the pillars.

### § 13.—UPPER HALL OF THE DOUBLE AXES.

It has already been mentioned that a series of pillar bases and the intervening sections of pavement belonging to the room above the Hall of the Double Axes were found in position, only slightly sunk below their original level. Two further pillar bases subsequently came to light, corresponding to two of those found below facing the Southern Portico. The first series had been already temporarily supported in their position by means of a wooden scaffolding which, both in the case of these and the bases, has now been replaced by pillars of wood and stucco answering as nearly as possible in character to those which had originally stood there (see Fig. 22).<sup>1</sup> These rest on the original limestone bases.

A further hint as to the original construction of this upper room was the discovery above the floor level of the Southern Portico of a slab with a segmental cutting made for the insertion of part of the diameter of a column, like the parapet slabs that flank the impluvium of the Throne Room. We have here a valuable indication of the arrangement adopted in upper galleries answering to the Southern and Eastern Porticoes below. It is obvious that on the upper galleries some kind of breastwork was needed, and the analogy of the Throne Room makes it probable that a continuous stone bench ran here between the columns, as shown in Mr. Fyfe's upper storey plan on p. 57.

<sup>1</sup> The newly made supporting pillars with their corner posts of wood are clearly shown in this figure.

#### § 14.—THE DOG'S LEG CORRIDOR AND THE DOMESTIC QUARTER OF THE PALACE.

Immediately opposite to the door at the upper end of the Hall of the Double Axes communicating with the Lower East-West Corridor, was another corresponding doorway. This, on being opened out and supported above by a flat arch as a protection against lateral thrust, gave access to a short paved passage with a turn at both ends, and to which from its shape the name of 'Dog's Leg Corridor' has been given. It is evident that this double turn greatly enhanced the privacy of the room beyond.

The Dog's Leg Corridor is finely paved with limestone slabs, and on its North and West sides retains the wainscoting of gypsum slabs, each about two metres in height and one metre in width, above which ran the groove already referred to, originally fitted with wooden beams laid horizontally. Above this again the wall construction, largely belonging to the upper storey, was preserved for a height of over five metres from the floor level.

This short corridor, after passing a limestone pier and plinth on the left, gave access to an interesting and quite original hall. This hall formed the principal room of a self-contained quarter of the Palace, having none of that semi-public character noticeable in the case of the Halls of the Double Axes and of the Colonnades. There is every appearance that we have here to deal with suites of private and domestic apartments, somewhat carefully secluded from the busier section immediately to the North of this with its great staircase and through corridors in direct connexion with stately halls that must have mostly served as a gathering-place for the men. In this quarter, on the other hand, we note on every side arrangements for securing privacy and comfort, together with sanitary conveniences in some ways ahead of anything the world was to see for the next three thousand years.

We have here (*see pp. 56, 57, Plans, Figs. 29, 30*) the centres of the domestic and family life of the Palace. To apply to this section indeed the oriental name of 'Haremlik' might convey a wrong idea, since there is no question—witness the miniature frescoes—of a rigorous separation of the sexes in the 'House of Minôs.' We are at liberty to believe, however, that this secluded quarter was in a special way the domain of the women, and the distinctive name of the 'Queen's Megaron' has been accordingly given here to the most stately withdrawing room of this region.

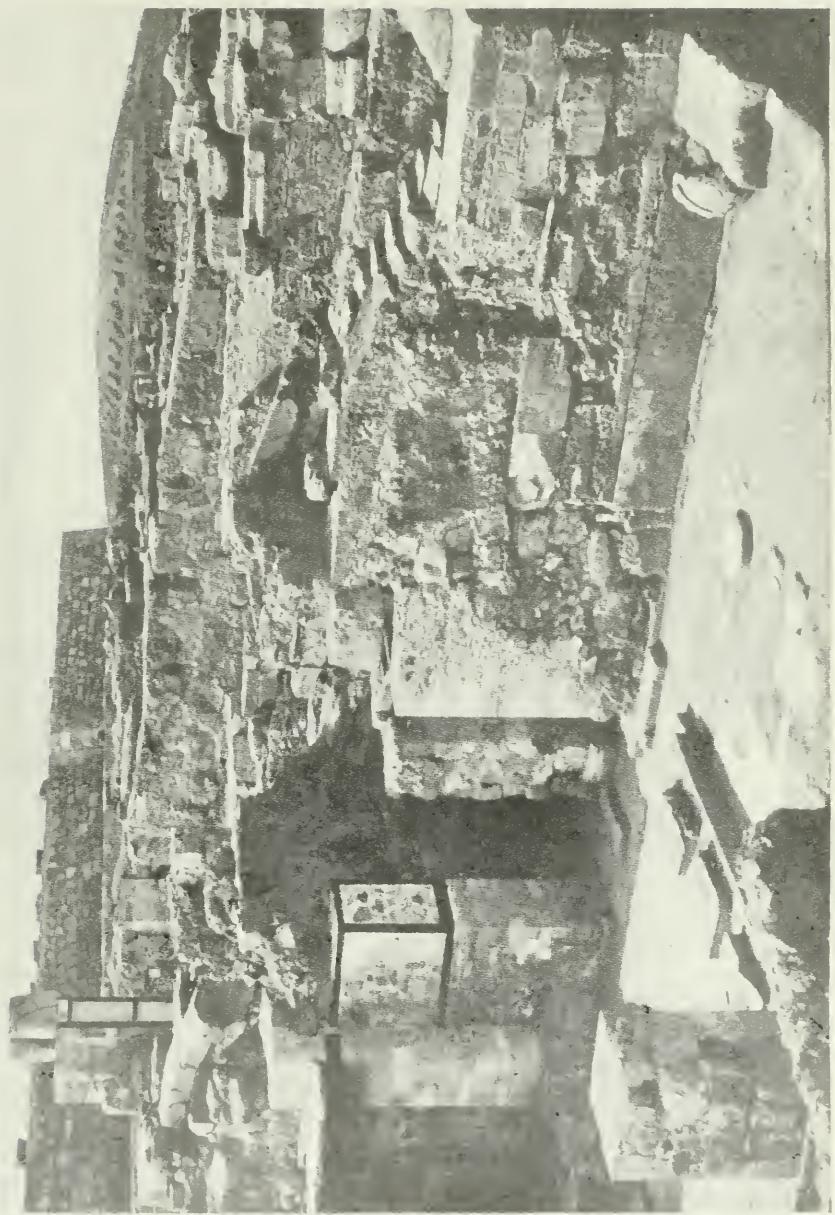
## § 15.—THE QUEEN'S MEGARON WITH ITS BATH ROOM AND REMAINS OF WALL-PAINTINGS.

The hall here described as the ‘Queen’s Megaron’ was found to be divided into an inner chamber, with an adjacent bath-room and elongated area, and an outer part consisting of a portico opening on another enclosed area that served as a light court on that side.

Of the back wall of this outer area, which separated it from the space in front of the South Portico of the Hall of the Double Axes, only two, or, in places, three courses remained in position. These courses are of good limestone masonry, and the disappearance of the upper part perhaps implies that it consisted of rubble masonry and timber, with the usual plaster facing. A later wall of poor construction had been built near the outer line of the Portico within. At the same time the masses of painted stucco that had presumably covered the original back wall of the light area had been cast aside and formed a heap above and on each side of its remaining lower courses.

This demolition and poor reconstruction leads us to a series of related phenomena that made themselves apparent not only in the ‘Queen’s Megaron’ itself but throughout the whole of the deep cut section of the Palace South of the Quadruple Staircase and the Halls of the Colonnades and of the Double Axes. Throughout this area there were abundant signs, like those already noted in the Southern basements and in the rooms West of the Northern entrance, of a re-occupation in the mature Mycenaean Period. There is some evidence that the intensity of the conflagration which has left such obvious traces in the great halls to the North of this area was on this side so far mitigated that some even of the upper rooms were left in a more or less habitable state.

In clearing away in successive horizontal sections the deposit above the Queen’s Megaron, which, towards its Western limit, attained a depth of over 6 metres, a series of large stirrup vases and amphoras were found, partly piled one over another, above the remains of pavement belonging to an upper floor level (See Fig. 23). It seemed indeed as if a large part of the original upper floor had been used as a magazine for these vessels, which with their coarse decoration of octopuses, or often simple bands, in dull colours, must be regarded as a characteristic product of the



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Mycenaean Period proper. Over the body of the hall the remains of the upper floor level had fallen in at an early period, and the vases were found for the most part in a broken condition at a lower level. Above the little bath chamber however, thanks to a later supporting wall built above the balustrade, the store had been less displaced, and many vases in perfect condition were ranged against the walls of the upper storey room.

It looks as if shortly before the final desertion of the building a comprehensive plan of restoration had been set on foot throughout the region above defined. On approaching the floor of the Megaron below, there was found everywhere a stratum of lime, and the adjoining bath chamber had been used as a special deposit of the same material, while a late *pithos* full of lime stood in its entrance passage. A small chamber immediately South of the portico of the Megaron was found moreover to have been actually turned into a kiln, in which were found a number of mature Mycenaean cups and vases. It was obvious that the plaster on the North wall, as on the destroyed upper part of the East wall and again in the corridor leading to the inner rooms to the West, had been deliberately picked away and thrown aside in the heaps in which it was found. Oddly enough the earlier decorative plaster has only remained untouched in the upper part of the walls of the bath chamber, which itself had been converted into one of the chief receptacles for the restorer's lime.

It was not till after the removal of this thick lime deposit that the internal structure and arrangements of the Megaron could be fully made out (see Fig. 23). Both the interior part and the portico beyond were paved with fine limestone slabs, the pavement being replaced as usual by cement in the light areas to East and South. A more original feature was supplied by a raised base or stylobate which formed a division between the two halves of the Megaron, leaving a passage only at its Northern end.

The best idea of this structure will be given by the annexed plan and section (Fig. 24*a* and *b*), showing its existing state, and by the elevation and restored section (Fig. 25). The base was formed of limestone blocks, 26 cm. in height, faced with gypsum slabs, the whole breadth of the base being almost exactly a metre. Along the centre of this ran a raised ledge of varied composition, stone, rubble and plaster, on which were laid gypsum slabs with raised intervals between forming the bases of narrow piers. The lower ledges on either side of this central system had been covered with wooden boards, a good deal of which was preserved in

a carbonised state, and the surface of this again was coated with cement. This plaster covering curved up against the slightly bevelled edges of the centre slabs (see Fig. 25) so as to get a good grip of the wood and at the same time to form a curved termination of the seat back similar to that found in the throne, and other examples. The stylobate thus fulfilled a two-fold function. It acted as the base of the narrow pillars, which, while leaving broad light openings, supported the room above. At the same time it provided a double bench. This bench was, as we have seen, of comfortable con-

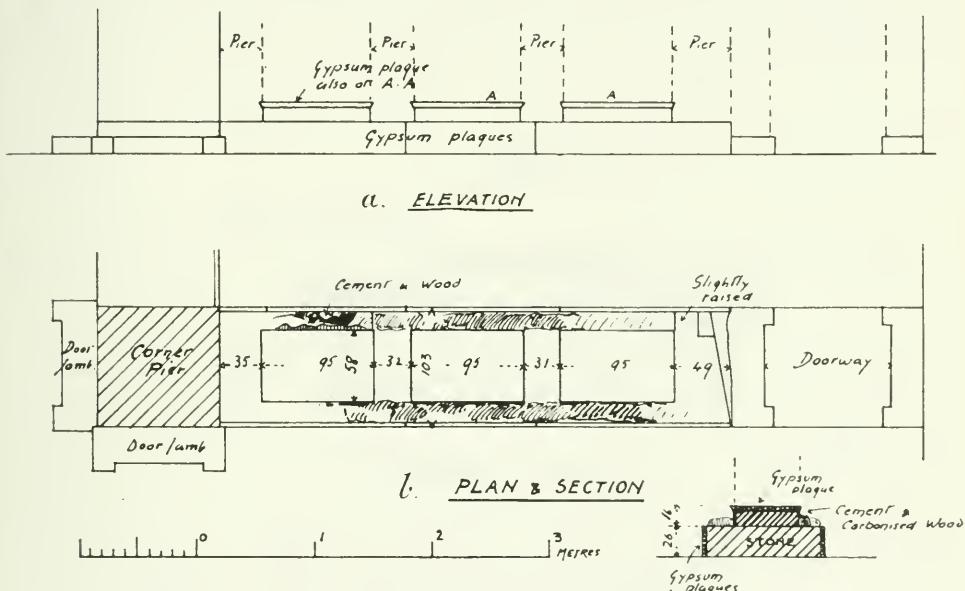


FIG. 24.—PLAN, SECTION, AND ELEVATION OF RAISED STYLOBATE WITH DOUBLE BENCH.

struction and the woodwork certainly projected sufficiently beyond the line of the stone to give the required depth for a seat. The moulded stucco surface of this was doubtless also covered with cushions.

The total height of the seat from the ground may have been about 30 centimetres. This is lower than the benches of the Throne Room, but considerably higher than the plaster seat of the "Cook" in the small chamber behind it. It must however be borne in mind that this last mentioned seat was specially arranged for a person, presumably of menial condition, engaged in preparing food on a table only slightly raised above

the floor level. It cannot therefore be regarded as conclusive for the height of the Minōan ladies' seats. On one of the Zakro gems for instance<sup>1</sup> a female figure, probably intended for a Goddess, is seen seated on a kind of stool without a back, the top of which comes nearly to the level of her bent knee. But there is no reason to suppose that the benches in the 'Queen's Megaron' were reserved specially for women. This was rather the general withdrawing-room of the family quarter of the Palace.

Along the South side of the inner part of the Megaron, facing the door opening from the 'Dog's Leg Corridor,' was another similar stylobate,

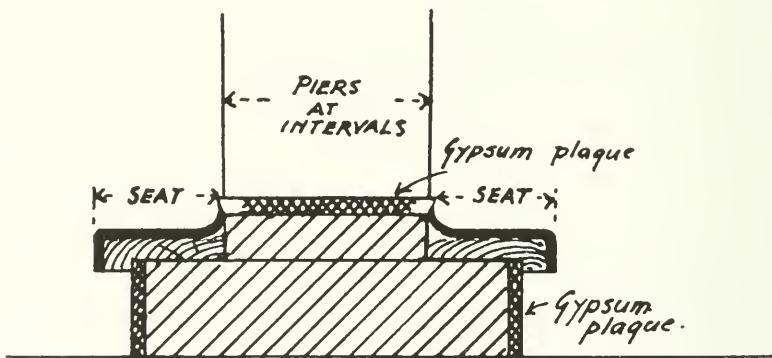


FIG. 25.—RESTORED SECTION OF STYLOBATE WITH DOUBLE BENCH.

formed in the same way of limestone blocks with a facing of gypsum plaques. It was of the same length as the other, but in this case the seat had only existed on the inner side. There was indeed no passage on this line into the light area beyond,—the stylobate running without a break from a square inner pier of good ashlar masonry to another pier forming the South-West corner of the room. The upper structure here has disappeared, but the former existence of a similar layer of woodwork was evidenced by certain mortises and dowel holes on the upper surface of the limestone blocks. From the fact that the length of this stylobate was

<sup>1</sup> D. G. Hogarth, 'The Zakro Sealings,' *J.H.S.* xxii., Pl. VI. 3; and cf. p. 77, Fig. 2.

the same as the other, we may assume that it supported the same number of pillars with equal intervals between them.

The openings here were devised to give light from a narrow elongated area, about 1·40 metres wide, which derives a special interest from the character of its South wall. This wall consists of exceptionally large blocks (about 2·38 metres in length by 0·68 in height) somewhat roughly faced, in contrast with the smooth ground surface of the later masonry, and incised with the spray or branch sign, larger and deeper cut than the signs of the existing Palace. The blocks, moreover, had a more distinct clay bedding (necessitated by the unfinished surface) than is usually found in the building. This was particularly conspicuous in the horizontal lines—attaining a thickness of about a centimetre. There can be no doubt that this is one of the earliest existing walls of the building, and that it goes back at least to the close of what may be called the 'Middle Minoan Period.'

Another interesting feature about this light area is that in order to enable the light to slant in to the adjacent hall, the wall—or rather the later addition to it—steps back above.

It seems certain that this light area was during the latest Palace period covered with a brilliant stucco decoration. A pile of this, perhaps torn down at the moment of the would-be restoration, lay in the innermost corner of the area and supplied the evidence of a quite unique method of relief. This is illustrated by the fragment exhibiting part of a bird shown in Fig. 26, *a, b, c*. The bird itself, which is on a white ground, has long curving wings and feathers of brilliant and varied hues, red, blue, yellow, white and black.

The moulding of the relief as shown in the side view (*b*), and section (*c*) does not correspond with any recognised canons of relief. The wing ends are executed in a kind of sharp bas relief, but the tail feathers can best be described as cut in intaglio. It looks indeed, as if an artist accustomed to the technique of gem engraving had transferred the process to moulded *gesso duro*. Such a combination of crafts recalls the early Renaissance.

The interior part of the 'Queen's Megaron,' namely that directly approached from the Hall of the Double Axes, was thus lighted by a double series of pillar openings, one looking towards its East Portico, the other facing the Area of the Bird Relief on the South, and both flanked by shapely

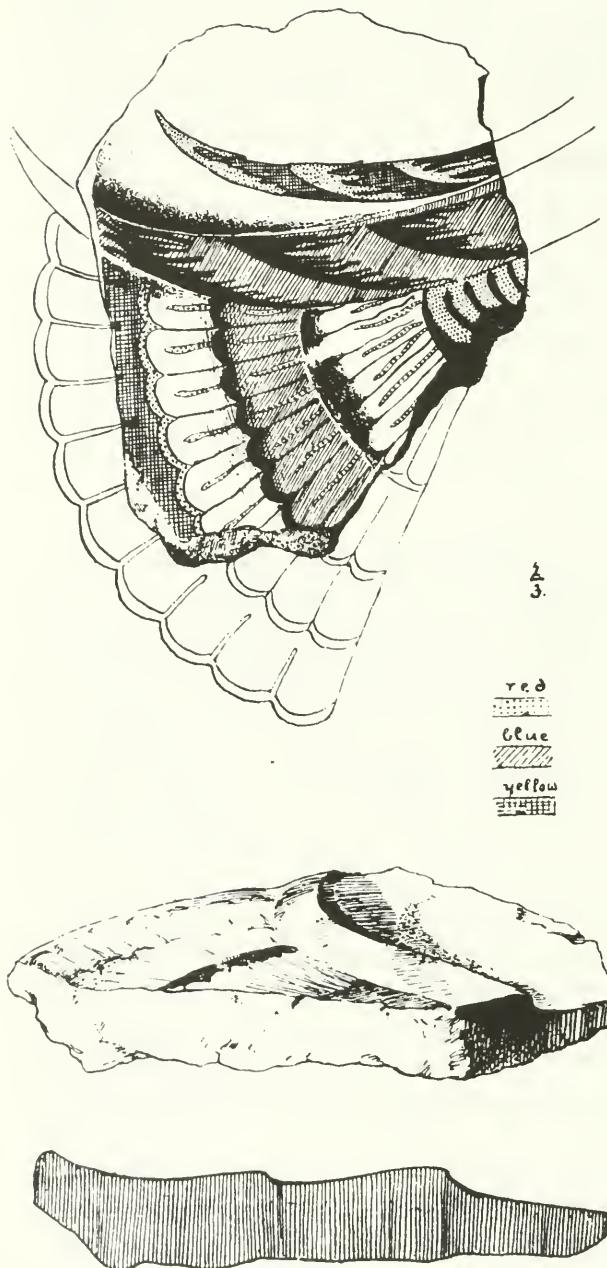
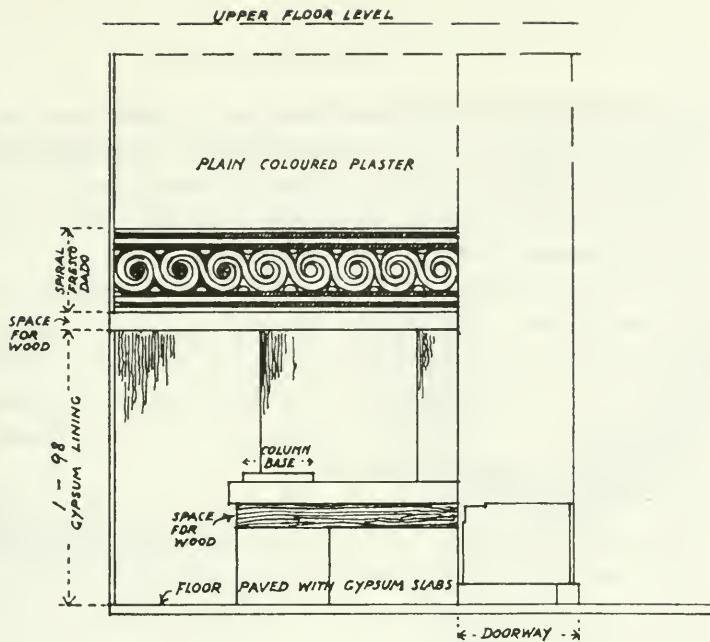


FIG. 26.—VIEWS AND SECTION OF PAINTED RELIEF SHOWING BIRD'S TAIL AND WINGS.

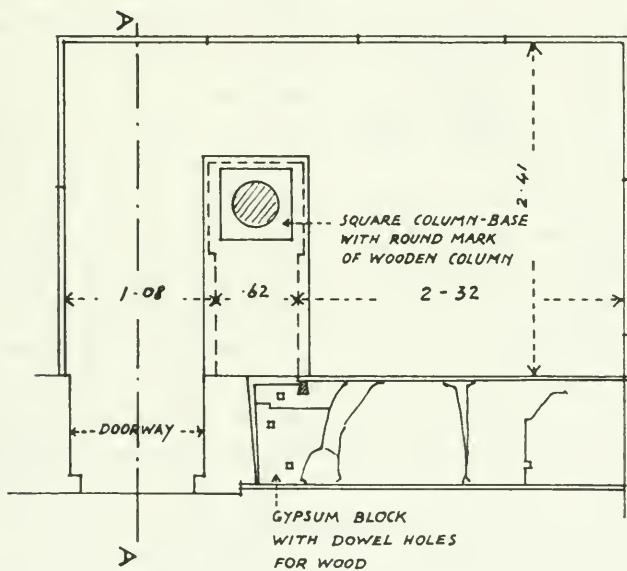
benches. In the North-West corner, immediately to the right on entering, was the small bath chamber already mentioned.

This bath-chamber, the details of which can be gathered from the annexed plan and elevation (Fig. 27, *a* and *b*), was flanked, like the Palace baths already described, by a balustrade, with corner and terminal piers. The latter of these was a column base, still showing the circular mark of a wooden column 31 centimetres in diameter. The corner pier had dowel-holes for the wooden part of a pillar of the usual composite construction. The walls showed the characteristic gap for plaster and woodwork below the coping slabs, and the limestone blocks below this were faced, like the neighbouring stylobates, by gypsum plaques.

This bath-chamber differed in an essential point from those found elsewhere in the Palace.



a. SECTIONAL ELEVATION ON LINE "A-A"



b. PLAN



FIG. 27 a, b.—PLAN AND SECTIONAL ELEVATION OF BATH ROOM WITH PAINTED SPIRAL FRIEZE.

It had no descending steps, the basin being on the same level as the floor of the adjoining Megaron. It was constructed for a portable bath, and in fact considerable remains of a large painted terracotta bath were found in the portico of the neighbouring hall, having doubtless been turned out when the bath-chamber was used as a lime-store.

Neither was this bath-chamber in any way an 'impluvium' like that of the Throne Room. The present chamber was roofed over, and the openings between the pillars here were not for letting in light into the adjoining hall, but for enabling the light of the Megaron to penetrate into the bath-room, where, however, privacy may at any time have been attained by drawing curtains between the pillars.

Apart from other evidence of the existence of a room above, the good state in which the interior of the bath-room was found may be taken to show that it had not been exposed to the weather. The gypsum lining slabs, about 2 metres in height, were here exceptionally well-preserved, and above the upper margin of these were considerable remains of a frieze of painted stucco, already referred to in the treating of the 'Hall of the Double Axes.' The central band of this frieze or dado, which was about half a metre in width, consisted of rosettes, or conventional marguerites, linked by running spirals, with half rosettes in the angles.<sup>1</sup>

The communication from the inner part of the Queen's Megaron with its small bath room and double stylobate is confined to a single opening, which may be regarded rather as a passage-way between half pillars, like those of the Hall of the Double Axes, than a doorway proper. The outer portion of the Megaron thus entered, flanked by a bench answering to that on the other side of the stylobate, consisted of a paved portico with two column bases 65 centimetres in diameter, facing to the East the enclosed light-area already referred to. On the South a doorway led from the portico to a small square room (that used later as a lime-kiln) with two other doorways, one communicating with the Area of the Bird Relief, the other leading through a narrower chamber to a passage opening opposite the South Portico of the Hall of the Double Axes. There was therefore a means of access to the Queen's Megaron from the East, though evidently controlled by a strict system of guardianship and surveillance. Three separate doors had to be passed and two small chambers to be traversed to enter from this side.

<sup>1</sup> See D. T. Fyfe, *op. cit.*, *Journal of R.I.B.A.*, 1902, p. 120, Fig. 43 (upper fig.).

In the North Wall of this outer section of the 'Queen's Megaron' were some exceptionally large limestone blocks—one 2·71 metres in length



FIG. 28.—WALL-PAINTING OF LADY, APPARENTLY DANCING.

by 0·72 high—several of them marked with the Double Axe sign. This wall, which formed part of the casing of the private staircase to be described below, had been entirely denuded of its stucco decoration. It is possible,

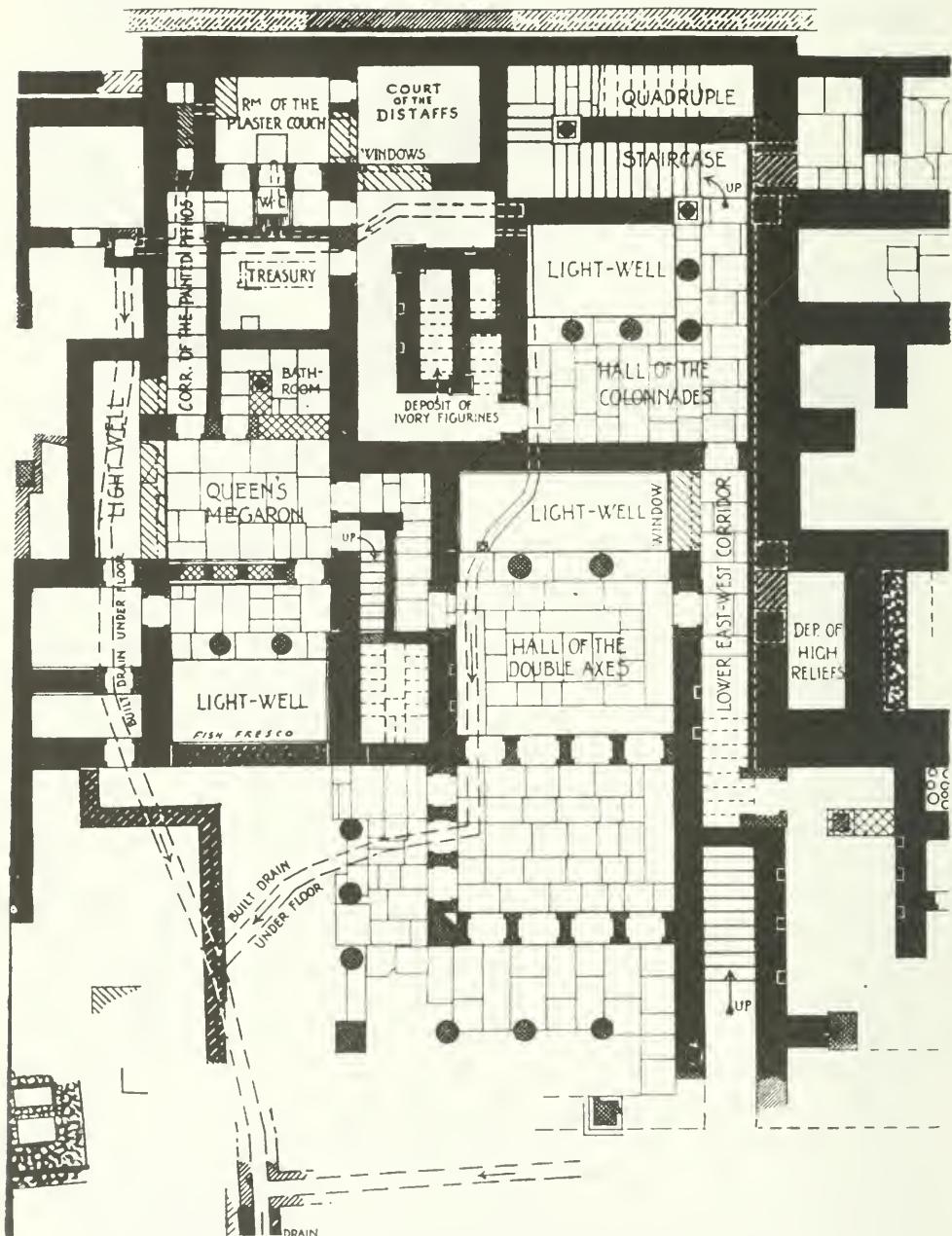


FIG. 29.—GROUND FLOOR PLAN OF DOMESTIC QUARTER AND ADJOINING HALLS.

DEEP PART OF EAST-SLOPE  
PLAN OF UPPER FLOOR

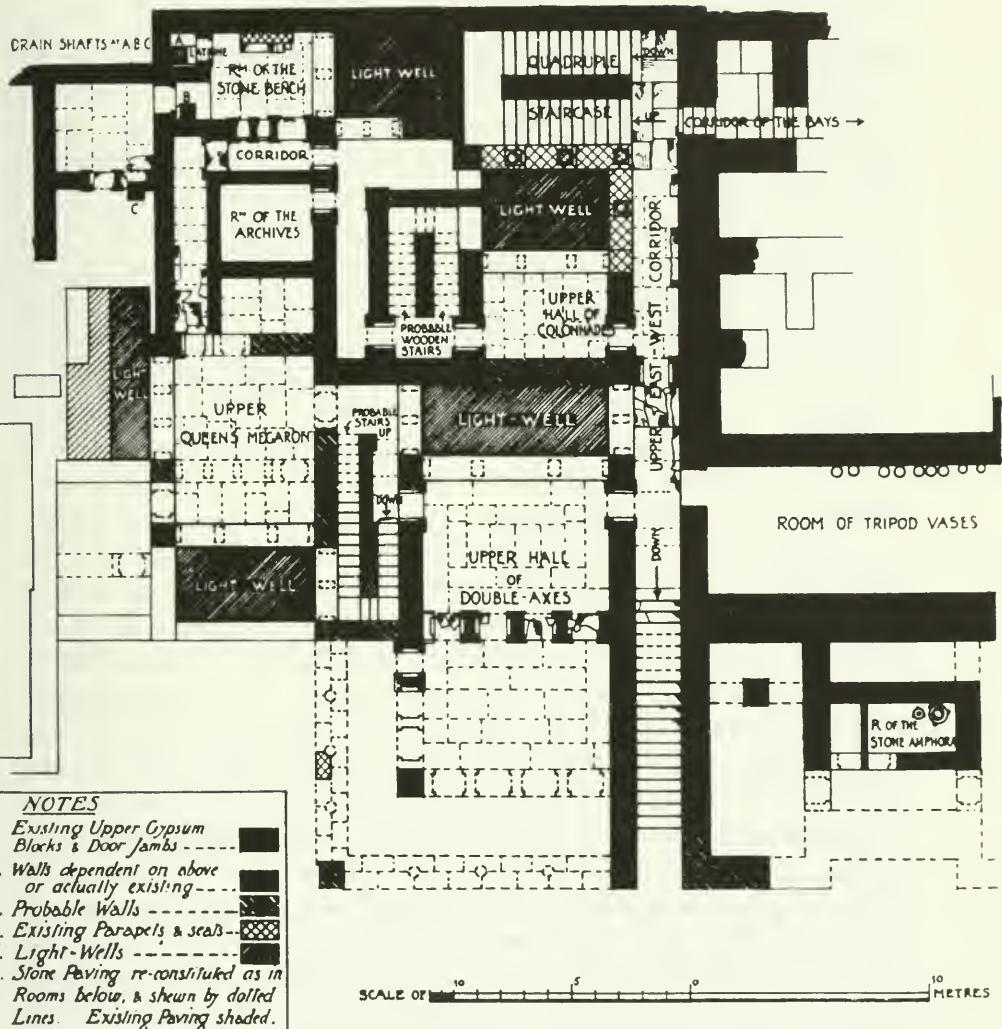


FIG. 30.—UPPER FLOOR PLAN OF DOMESTIC QUARTER AND ADJOINING HALLS.

however, that a spirited design of the upper part of a lady (Fig. 28) found at a low level in the neighbouring heap of detached plaster belonged to this space. The figure is about half the natural size, and seems from the way in which her tresses fly out in opposite directions to be engaged in somewhat energetic action, but her attire is not of the same masculine type as that of the female toreadors. She is clad in a jacket of the ordinary type, with a yellow ground and blue and red embroidered border, beneath which is a diaphanous chemise, its upper line showing clearly across the chest. Her left arm is bent and her right stretched forward. Her features are fairly regular, and a slight dimple is traceable at the corner of her lips, which, however, is hardly the *σεμνὸν μειδίασμα* of Archaic Greek art. She is possibly one of a group of dancers like those that appear with raised arms on one of the miniature frescoes. Unfortunately a part of the right arm, which might have afforded some clue to the meaning of the design, is missing, but it is not difficult to believe that figures such as this, surviving on the Palace walls even in their ruined state, may lie at the root of the Homeric passage describing the most famous of the works of Daedalos at Knossos—the ‘Chorus’ of Ariadnê.

Of the character of the decoration of the back wall of the light court of the Megaron there can be little doubt. Of the heaps of detached pieces of painted stucco that lay along its line the most abundantly represented were derived from a great marine piece containing a large number and variety of fishes. The larger pieces of the design belonged to two dolphins and to a certain extent completed one another, one set belonging to the tail end, another to the head. Both these and the numerous smaller fry were most naturalistically rendered, and, though among the preserved fragments there were no flying fishes, there could be no doubt that the whole belonged to the same class as the marine fresco from Phylakopi.<sup>1</sup> The spirited character of the designs, the prevailing colours of the fish, blue of varying shades, black and yellow, the submarine rocks with their coralline attachments, and still more the manner of indicating the sea itself, proclaim identity of method. In both cases it was found advisable to reserve the different tones of blue for the fish themselves and to give their outlines greater relief by leaving the ground white, while at the same time the marine element was gracefully indicated by azure wreaths and coils of dotted spray. The spray and bubbles fly off at a tangent from the fins and tails, and give

<sup>1</sup> *Annual B.S.A.* iv. Pl. III.

the whole a sense of motion that could not otherwise be attained. It is evident that the panel of similar fresco from the Melian site belongs to the Knossian School and may even have been imported ready-executed from Crete like some of the fine Palace pottery found in the same building.

The covering of the wall of the light area, facing the seat beneath the portico, with this marine design suggests interesting comparisons. The whole is the artistic substitute for a natural view, identical in intention with the landscape scenes that form such a favourite feature of the blind walls that shut in the smaller courts and areas of Italian villas, and which are supposed to cheat the eye with the illusion of a free outlook. On this side those seated in the adjoining portico might seem to see the fishes of the sea disporting themselves, while the flying bird of the area lighting the Queen's Megaron on the South may be taken to represent a fragment of a similar scene borrowed this time from the fields and woods.

#### § 16—PRIVATE STAIRCASE FROM THE ‘QUEEN’S MEGARON’ TO *THALAMOS* ABOVE.

An interesting feature connected with the Queen's Megaron remains to be described. The right door jamb facing the entrance of the Dog's Leg Corridor, was found to have a double reveal indicative of a second doorway, the other jamb of which presently appeared. The fondness of the Palace architect for double doorways is conspicuous, and it seemed at first as if in this case this second portal was of a more or less decorative kind—leading perhaps to a small closet—the more so as the opening was partly blocked by a pier belonging to the wall of the adjoining corridor.

Even supposing that the upper part of the third door jamb, which consisted of wood and plaster, had been originally splayed back, the opening here could not have been more than 70 centimetres or rather less than 28 inches in width.

The surprising discovery was made, however, that this narrow opening nevertheless gave access to a stone staircase, affording a private means of communication with the upper-rooms. This staircase was 92 centimetres in width,<sup>1</sup> somewhat broader than its entrance and its lower flight was very

well preserved. This consisted of a first flight of fourteen steps, a landing with three more, flanked by a square pillar, and an upper flight, originally consisting of nine or ten steps, of which seven were preserved. This upper flight led to a landing with a doorway, on the right of which both jambs were preserved, leading to the upper Hall of the Double Axes. The private staircase from the Queen's Megaron had the effect therefore of bringing this fine Upper Hall into the system of domestic rooms. The Upper Hall of the Double Axes had, in fact, no direct connexion with the more public Hall immediately below it, though it stood in communication with the Upper East-West Corridor.

Beyond this doorway the staircase landing merged in a short passage above the Dog's Leg Corridor and thus gave access through a second doorway (no longer preserved) to the upper room or rooms above the Queen's Megaron. From this, in turn, an Upper Corridor, part of the pavement of which has been preserved, led West to the upper storey room of the Domestic Quarter to be described below. (See Plan, Fig. 30, p. 57.)

Near the point where the first floor landing-passage of the Private Staircase would have entered the 'Upper Queen's Megaron,' a sunken block was found which reveals an interesting fact. This block, which resembles one on the first landing of the staircase and other staircase blocks found on the site, had sunk to the position in which it was found from an upper landing. In other words the staircase was originally continued to a second floor and there were at least three storeys in this part of the building.

In excavating the staircase a fine bronze chisel<sup>1</sup> was found together with fragments of fresco and a clay seal impression—a galloping bull with a fish below—a curious anticipation of the coin types of Thurii. The upper flight was partly choked with plain pottery belonging to the Re-occupation Period, including numerous pedestalled cups of the 'champagne glass' type.

#### § 17.—THE BACK ROOMS OF THE DOMESTIC QUARTER: GROUND FLOOR. (SEE PLAN, FIG. 30, P. 57.)

Immediately South of the entrance to the Bath Room of the Spiral Fresco, another doorway, 87 cm. in width, leads from the Queen's

<sup>1</sup> 9·4 cm. long, 0·9 broad at edge.

Megaron to a corridor which brings it into connexion with the back ground-floor rooms of this Domestic Quarter of the Palace.

At the entrance of this corridor stood a large pithos, both in form and decoration different from any of the jars found in the various Magazines. It was shaped like an ordinary tub, and displayed a zone of continuous spirals broadly painted in black. It had been filled with lime and set in the position where it was found (blocking the passage way) at the time of the Mycenaean 'restoration,' but it is by no means so certain that the *pithos* itself belonged to this later period. The painted decoration recalls the jars of the latest pre-Mycenaean period, lately found in Magazines below the floor of the Great Megaron at Phaestos. The shape on the other hand suggests the tub-like receptacles for flowers and shrubs that appear on the background of certain scenes on Mycenaean gems. This painted clay tub had been placed for security on the upper ledge of the Southern light area of the Queen's Megaron, and it is by no means impossible that this ledge may have been originally adorned with large pots of this kind containing flowering plants.

The Corridor of the Painted *Pithos* runs under the passage already referred to as leading from the Upper Queen's Megaron to the rooms on the same storey at the back, and of which on this side one of the door jambs and part of the pavement was found in position. The lower gallery would have been quite dark had it not been for a window immediately to the left on entering, the masonry forming the East side of which is splayed back—the effect of the squint being to afford passage for the maximum of light from the 'Area of the Bird Relief,' on the extreme corner of which it opens. The corridor, finely paved with limestone slabs, is about 1·40 metres in width; the walls on the South side show good masonry, that on the North being of somewhat rougher construction. The original stucco covering has for the most part been stripped off from both walls. At the point where the passage makes a sudden turn to the North, however, remains of the fresco-coating were still visible showing a band of spirals<sup>1</sup> resembling that of the bath room, but without rosettes and placed at a lower level. It runs at a height of 78 cm. from the ground and is 50 cm. in breadth.

The fact that the Corridor of the Painted *Pithos* does not run straight from one room to the other, but has a short turn, or rather double turn, is very characteristic of the Palace architecture in this region, and has been

<sup>1</sup> See D. T. Fyse, *Journ. R.I.B.A.* 1892, p. 111, Fig. 8.

already illustrated by the Dog's Leg Corridor. It seems to have been a device for insuring greater privacy.

At the North corner, where the short inner turn of the Corridor begins, was a square gypsum block and considerable remains of the timber frame of a flat arch about the height of an ordinary doorway, the masonry above which was found in position supporting the stone jambs and threshold of the corresponding turn of the Upper Corridor. The actual door to the inner room was not however at this point. Immediately beyond the arch the passage way was once more diverted by a partition wall of gypsum slabs, so that, to pass the door jambs that gave entrance to the room in question, it was necessary to turn once more to the right about.

The characteristic feature of the ground floor room thus approached, so far as concerns its interior arrangements, was an oblong platform of plaster-covered stonework in its S.W. corner, 1·50 metres in length by 0·80 in width. There can be little doubt that this was the support of some kind of bed or couch, and it recalls rectangular platforms of the kind in some of the Mycenaean Chamber Tombs at Phaestos, on which were found the skeletons of bodies laid out in the sleep of death. This 'Room of the Plaster Couch,' may therefore be regarded as having served as a bedroom. It was covered with a cement floor, except for one large slab in the middle of its Eastern border, with an aperture used for flushing a drain, to be referred to below.

This slab in fact was opposite the entrance jambs of a latrine, a description of which is reserved for a succeeding Section, in connexion with the drainage system of this quarter. Its South partition wall was that which had turned off the entrance passage described above. Beyond the North partition wall of this closet was another doorway, with remains of its wooden framework and red coloured stucco, giving access to a corridor leading by a double turn to the Hall of the Colonnades. The Eastern side of the room thus shows a succession of four limestone jambs and bases with reveals, originally surmounted by as many pillars supporting the upper storey. Three stone pillar bases of the upper storey answering to them in number, but not quite in relative position, were found compacted together by means of intervening pavement slabs forming a fine line of masonry, which, especially in its central part, had somewhat sagged down below its original level. This has been preserved (slightly raised, to its original level), by means of brick piers built above the lower pillar bases.

The South and West walls of the room were constructed of rubble masonry, but the North wall showed fine limestone blocks above and below. In the North-West corner was another doorway leading to a small court which served as a light area. To the right of this exit the upper limestone courses had sunk a good deal, and between them and the lower courses was a space filled with earth and rubble. This subsidence was due to the fact that the whole upper part of this North wall had been originally supported on wooden beams and pillars forming the frame-work of a large double window opening on to the Court, and thus giving sufficient light to the room. The limestone blocks above the original window opening were photographed and numbered in their relative positions and replaced at their original level above a new supporting wall, on the cement facing of which the form of the window was traced. The somewhat naive trust of the Minōan builders in the strength and durability of wooden supports at least bears witness to the massiveness of the timber employed. In the present case there was not even a flanking pillar of stone by the doorway as might naturally have been expected.

The walls of the Room of the Plaster Couch had lost their stucco covering, but the remains of a fine dado of gypsum slabs, 2 metres high and 1·20 broad, were visible round the South and West walls and above this a gap for wooden beams, which we may infer to have been originally marked by a painted frieze of spirals and rosettes like that of the adjoining Corridor and Bath Room.

The North-West door of the 'Room of the Plaster Couch' gave access as already stated to a small Court (4·50 metres North-South by 3·50 East-West) which serves as its light area. The walls of this Court, except the spaces reserved for the windows, were of fine limestone blocks with the usual gap for woodwork about 2 metres from the floor. Along the foot of the North wall was a projecting course, which seems, when coated with its original stucco covering, to have been used as a seat.

On the East Wall of this Court was a second double window like that looking out from the Room of the Plaster Couch, giving light, in this case, to an alcove and to the Corridor leading towards the Hall of the Colonnades. The dowel holes in the stones that formed the sill of this window, about 40 centimetres above the floor level, clearly showed how the wooden posts—two side posts and one in the centre—had been arranged. Considerable remains of these and the massive lintel above were indeed

found in a carbonised condition amidst the debris which had worked its way into this opening and helped to support the limestone blocks above. It was thus possible to restore the whole framework of the windows,

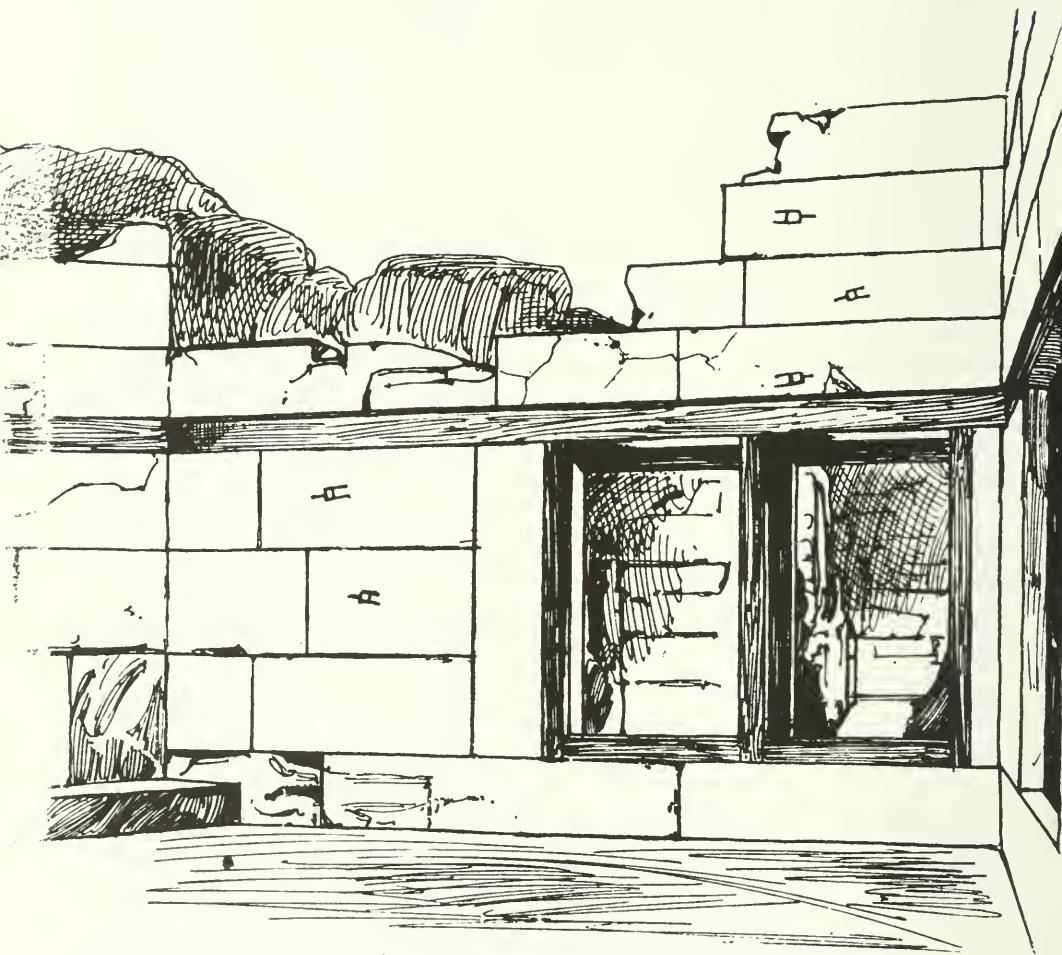


FIG. 31.—VIEW IN COURT OF THE DISTAFFS, SHOWING RESTORED FRAMEWORK OF WINDOW.

the somewhat sunken limestone courses above being raised to their original position (see Fig. 31).

An interesting feature of the limestone blocks of this small Court was the repetition of a sign like a two pronged fork with two cross-lines between

the prongs—sometimes reduced to a single cross-line—(Fig. 32 c and d). But this mark has a peculiar interest from the fact that it recurs in somewhat fuller and more realistic form among the signs of the pictographic Cretan series (Fig. 32 a, b). It is seen in this case accompanied by a sort of pendant and in my first account of the Cretan pictographs I had been inclined to regard it as some kind of *sistrum*. That is a possible view, but it seems to me to be more natural to regard it as a simple representation of a forked distaff with the thread and pendant spindle—a type of distaff which may still be seen in the hands of the peasant women in parts of Southern Europe.

The distribution of this sign on the Palace blocks is interesting. It only occurs in connexion with this 'Domestic Quarter.' It is frequently

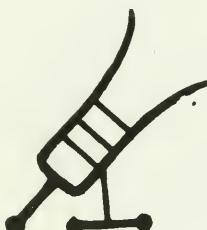


FIG. 32 a.

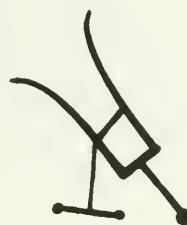


FIG. 32 b.

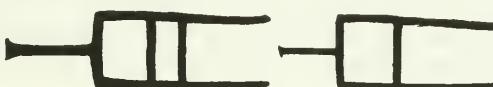


FIG. 32 c.



FIG. 32 d

repeated on the South wall of the light-area of the Hall of the Colonades above and below the double window looking into it from the back staircase of this region. It is found again in the Queen's Megaron on one of the door-jambs, the left on entering, leading to the private staircase, while the corresponding door-jamb on the right shows the Double Axe.

Can it be regarded as a sign of 'the spindle side' and a distinguishing mark of the chambers somewhat specially set apart for women? Or, if we are justified in believing that the marks on the Palace blocks have a consecrating value, can it be, like the distaff and spindle attributed to the Ilian Athénè, and perhaps the spindle whorls of pre-historic Troy, a sign of

female divinity? Its association with the Double Axe sign, the emblem of the tutelary male divinity of the Palace, points that way, but in this case too it would be specially appropriate for the Women's Quarter.

From the repetition of this sign on the walls of the small court with which we are dealing, it has seemed appropriate to name it the 'Court of the Distaffs.' There is no reason, however, for supposing that in its finished state these marks—which *ex hypothesi* were a sign of consecration for the material, like the dedications on Babylonian bricks—were visible to the eye. It seems probable that in all cases the fine limestone masonry of the small courts that serve as light areas in the Palace was brightened by a coating of painted stucco partly perhaps reproducing the lines of the stone-work, like the earlier 'Oscan' style of wall-painting at Pompeii. At Phaestos the limestone blocks of the outer Western wall showed abundant traces of the red-coloured plaster with which they had been originally adorned.

Part of a male figure in painted stucco found in this Court, and the loin-cloth of another with a brilliant needlework design of flowers and network<sup>1</sup> that lay near the doorway of the adjoining room, as well as a bull's foot in painted *gesso duro*, seem on the other hand rather to belong to the decoration of the usual rubble walls of the interior rooms or galleries. For we should naturally suppose that the coloured ornamentation of good masonry would be architectonic rather than pictorial in character.

Somewhat above the original floor level both in the Court and in the adjoining Room of the Plaster Seat were found abundant remains of rough Mycenaean pots—many of them 'Stirrup Vases' with octopuses painted on them—belonging to the Period of Re-occupation. At a lower level were found pieces of better Palace fabric. The most remarkable ceramic find, made a little above the floor level of the Court of the Distaffs, was a fine glazed and painted fragment showing part of an inscription in three linear characters of somewhat exceptional form (Fig. 33). This inscription, painted on the vase with the rest of its decoration before the firing, recalls the inscribed vases of Classical Greece and is the only specimen hitherto known belonging to the 'Mycenaean Period.'

The doorway at the North-East corner of the Room of the Plaster Couch leads by a double turn—analogous to that in connexion with its South-East door—to a passage of about the same dimensions as the Corridor

<sup>1</sup> Fyfe, 'Painted Plaster Decoration of Knossos,' *Journ. R.I.B.A.* 1902, p. 128, Fig. 69, (but placed wrong way up).

of the Painted *Pithos* on the other side, but with a cement floor in place of limestone slabs. This passage, lit by the Southern half of the window of the adjoining Court, passes on the left the opening of a rectangular alcove, the lighting of which was effected by the Northern half of the same window. This alcove was very probably reserved for attendants or guards.

Beyond this, immediately on the right, is a door giving access to what is undoubtedly the most secluded room in this quarter of the Palace, described below as the Treasure Chamber, to the contents and

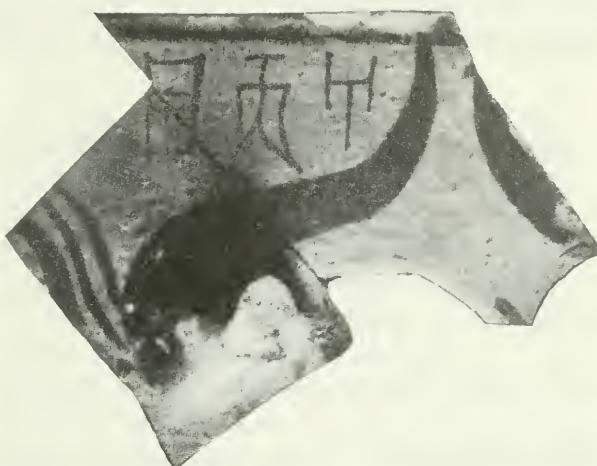


FIG. 33.—PART OF PAINTED VESSEL WITH INSCRIPTION.

character of which we shall return. Some six metres further on, the passage takes a turn at right angles to the left, and passing a kind of store cupboard—that of the ivory statuettes—and the entrance to a back staircase (see Section 18) emerges, through a door-opening, on to the inner corner of the Hall of the Colonnades. Through this Hall access would thus be gained either to the Quadruple Staircase and Central Court or by means of the lower East-West Corridor to the small rooms beyond its Eastern end, occupied in all probability by slaves or attendants. This unpaved back passage from the Room of the Plaster Couch must have been largely used as the service passage to the Domestic Quarter of the Palace.

Quantities of clay seal impressions, derived from the upper storey,

were found above the floor level of this passage from near the door of the Private Treasury onwards. Near the entrance to the Hall of the Colonades there also came to light some curious clay labels, repeating the same linear inscription and figures and showing the impression of thick string with prominent twisted strands running through them, which had doubtless served to secure large packages or bales.

Throughout all this section the walls of the Corridor, which ascended well above the upper floor level, were in a dangerous condition, necessitating the construction of two brick arches. In addition to this, stone pillars had to be built on each side of the doorway leading to the Hall of the Colonades, above which were laid iron bars to support the upper walling.

#### § 18. THE TREASURE CHAMBER AND THE DEPOSIT OF IVORY FIGURES.

The secluded room already referred to as opening off the back passage behind the Room of the Plaster Couch was certainly the inmost nook of this part of the building, and from the difficulties that beset its approach, and a certain mystery attaching to it, it was jocosely spoken of in the course of the excavations as 'the Lair.' Its upper part was choked with debris from a chamber above it of the same square form, containing a mass of clay seal impressions, an indication that archives had been originally deposited in this upper chamber. Above these again was a stratum full of broken stirrup vases and other 'Mycenaean' pots of the usual rough class, showing that, like the neighbouring upper rooms, it had been used as a store room for these vessels in the period of Re-occupation.

The room itself contained the evidence of a gradual rising of the floor-level, the upper level, which was of stamped earth, not very clearly marked, being 35 centimetres above a lower flooring. But the most interesting and unique feature was the foundation of this lower floor. It consisted of solid limestone blocks forming a bedding over the whole room and near the West wall roofing over a main drain. This solid if somewhat rough flooring suggests the idea that it may have been a precautionary measure against any one trying to enter the room from below by means of the large stone conduit. The level of this layer of limestone blocks was about 80 centimetres below the top of the stone bases of the door jambs.

Except for the doorway itself, there was no opening into the room,

and it must have been quite dark. This circumstance explains the discovery on the lower floor level, near the South-West corner, of a pedestalled lamp of steatite of the usual Minōan class.

The possibility suggested by the seclusion of this chamber, and the solid blocks of the floor, that it was used as a repository for valuables—a kind of private treasury or wardrobe—was borne out by the finds made near the earlier floor level. Here, especially near the North-East and South-West corners, were found a variety of objects of gold, bronze, ivory, porcelain, rock crystal and other materials. The gold here found mostly consisted of quantities of thin plate or leaf, such as was applied to the surface of various materials by the Palace artificers. There was also found,

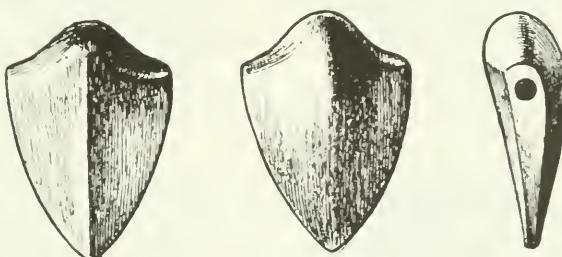


FIG. 34.—GOLD HEART-SHAPED PENDANT ( $\frac{1}{4}$ ).

however, a solid heart-shaped jewel with a perforation showing that it was used as a pendant (Fig. 34). It is of the same form as a Mycenaean amethyst gem, with an intaglio representing a flying eagle and possibly linear characters below, obtained by me from the site of Knossos in 1894,<sup>1</sup> and a similar pendant in cornelian came to light near the Olive Press Area.

Among the other objects found in this deposit may be mentioned the following :

Bronze attachments (with gold plate adhering) and, below, carbonised wood, perhaps for a casket (see below Figs. 35–36).

Wing and leg of an ivory griffin, and head, apparently, of lion.

Fragments of ivory ornaments, including part of a bracelet covered with thin gold plate.

Parts of bull's head of 'porcelain' with gold tubes for horns and blue glass eyes.

Pieces of an ivory casket.

Porcelain plaques for inlay, a great variety, including rosettes, pieces resembling

<sup>1</sup> *Cretan Pictographs, &c.,* p. 12 (281), Fig. 8.

oval shields; others of A shape, several with marks and numbers on their underside.

Jasper pommel of a sword or dagger.

Part of a bowl of rock-crystal (see below).

Crystal plaques for inlaying.

Remains of carbonised wood perhaps belonging to a box inlaid with porcelain plaques.

Miniature bronze axes with gold plate attaching (see below p. 101, Fig. 58).<sup>1</sup>

Parts of diminutive bronze blades, perhaps representing swords, gold plate attaching.

Two small fragments of stucco with paintings in a miniature style; one showing part of a frieze with double axes, perhaps alternating with shields; the other a piece of a bull's head facing.

The last mentioned objects, notably the miniature Double Axes, look as if part of the treasure had been removed here from a shrine. It seems even possible, in view of the miniature temple of terra cotta, found in the Earlier Palace chamber (see above, p. 28 *seqq.*), that the miniature frieze with this sacred emblem belonged to a portable 'sacellum' with stucco decoration.

A still more important discovery threw further light on the character of the valuables originally deposited in this small 'Treasury.' Under the second flight of the back stairway (to be described below), there seems to have been a kind of closet, 1·15 metres wide, with its opening at the corner of the passage, about six metres beyond the door of the room with which we have been dealing. The front of the opening of this stair-cupboard was shut in below by a low stone breastwork, the top of which was about 85 centimetres above the floor of the passage. By the time of the Re-occupation, the lower part of the closet within this barrier had been partly choked with earth, and at about 70 centimetres from its original floor was traceable a second floor level, upon which were found several later Mycenaean amphorae and a stirrup vase with octopus decoration.

Below this later but still Mycenaean floor level was a stratum of deposit some 30 centimetres in thickness, covering the remains of vessels of the Later Palace Period, including a pedestalled vase with two vertical handles, identical, except for the absence of painted decoration, with a late Kamáres type found in the Palace of Phaestos.<sup>2</sup> Immediately below this deposit of 'Transitional Minōan' vessels there came to light the remains of a series of ivory figures together with other objects, showing

<sup>1</sup> One was found round the corner by the latrine.

<sup>2</sup> L. Pernier, *Scavi, &c.*, 1900-1901. *Rapporto Preliminare*, p. 107, Fig. 39.

that this had originally been one and the same deposit with that of the little Treasure Room already mentioned. There was here, for instance, part of a crystal bowl of which another piece that fitted on to it was found with

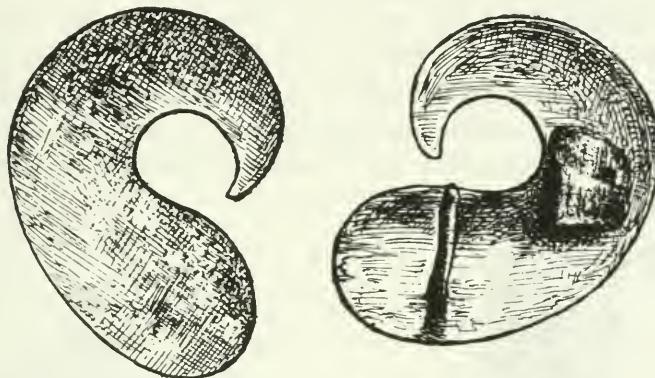


FIG. 35 *a* AND *b*.—DECORATIVE ATTACHMENT OF BRONZE, WITH GOLD PLATE ATTACHING.

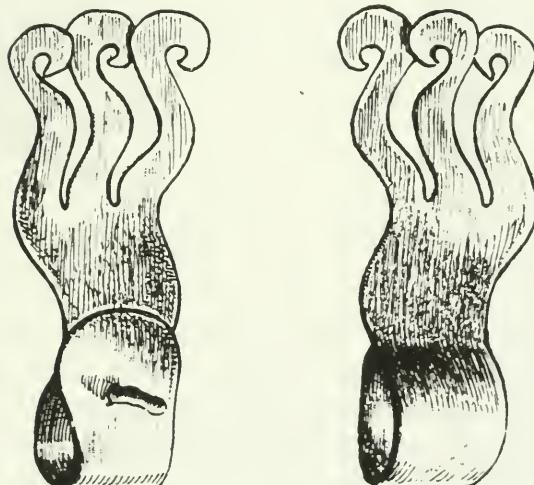


FIG. 36 *a* AND *b*.—DECORATIVE ATTACHMENT OF BRONZE, WITH GOLD PLATE ATTACHING.

the other deposit. Here also occurred part of a set of fittings, perhaps from a casket, made of bronze in some cases partly overlaid with gold plate, with curved terminations—some suggestive of a mane—and nail-like projections for attachment on their under side, of which other examples

were found in the neighbouring chamber (Figs. 35, 36). Similar pieces of porcelain inlay and an abundance of the same thin gold plate also came to light in this deposit.

Of much greater importance, however, were the ivories found, including, besides decorative pieces and an exquisitely carved wing of a bird, remains of human figures. When found these were in a very friable condition, but they were at once soaked in a solution of wax and paraffin at a high temperature, by which means a good deal of their original consistency was restored and their surface at the same time cleared of impurities.



FIG. 37.—PART OF IVORY HEAD, WITH CURLING LOCK OF BRONZE PLATED WITH GOLD (‡).

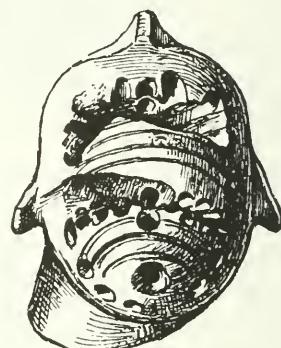


FIG. 38.—HEAD OF IVORY FIGURE, SHOWING HOLES FOR ATTACHMENT OF LOCKS OF HAIR IN BRONZE AND GOLD (‡).

The most remarkable of these ivories belonged to a series of figures of youths—possibly in one case of a girl—each of whom apparently is in the act of leaping with extended arms and head thrown back. Only in one case (Plates II. and III.) was enough of the trunk preserved to admit of the reconstitution of the whole figure. The waist alone—which has been supplied by wax—was here wanting. It was evidently, as in all the Palace figures, very narrow, and a strong presumption arises that it was surrounded by a metal band. The thin gold plate found with the figures further suggests that the usual loin cloth, which was certainly not wanting, was supplied by its means. On this and other examples the hair was reproduced in a curious manner by means of curling bronze wires with remains of gold

plating adhering to the bronze, several of which were found. Fig. 37 shows an example of one of these locks, somewhat corroded, still attached to a head. In Fig. 38 only the holes are shown. In this case there was evidently a row of shorter curls over the forehead. In several cases curving anklets and bracelets of the shape worn by the youths of the Procession Fresco are seen in relief round the ankles and wrists. The foot-gear consists of elegant shoes tapering to a slightly upturned point.

The figures were not cut out of solid pieces of ivory, the fore-arms being attached by means of joints and sockets in the manner illustrated by the specimen shown in Fig. 39. The height of the best preserved figure is 28·7 centimetres (about 11½ inches). From what has been said above it appears that these ivories were in a certain sense chryselephantine, and the question naturally suggests itself—was the ivory itself tinted? No trace of this is at present discernible, but the passion for colour is such an universal characteristic of Minōan Art, that it is probable that the male figures at any rate were originally stained of a ruddy hue.

The life, the freedom, the *élan* of these ivory figures is nothing short of marvellous and in some respects seems to overpass the limits of the sculptor's art. The graceful fling of the legs and arms, the backward bend of the head and body give a sense of untrammelled motion, to a certain extent attainable in painting or relief, but which it is hard to reconcile with the fixity of position inherent in statuary in the round. How were such figures supported? Not certainly by their taper feet or delicate fingers. It may be conjectured that they were in each case actually suspended from the girdle in a downward slanting position by means of fine gold wires or chains, recalling in this the *amorini* of Hellenistic jewellery and terracottas.

The naturalistic treatment of the individual parts of the body is quite in keeping with the animated appearance of the whole. The set of the arms and shoulders and the well-developed breast of the figure seen in Plates II. and III. point to careful physical training, and the slender limbs reveal great sinewy strength, though in some examples the treatment of the flesh is softer, and may, as suggested above, be due to a difference of sex. The arm represented in Fig. 39 gives a good idea of the fidelity in detail. While the development of the lower part of the biceps and of the succeeding supinator muscle are here well indicated, the extensors of the wrist and hand are shown in full action, and the veins of the back of the hand and even the finger-nails are minutely rendered.

These youthful figures are athletic—not to say acrobatic—in their nature, and certain parallels presented by the Palace wall-paintings, as well as by a series of gem impressions, seem to connect them in the most unmistakable way with the favourite sport of the Minōan arena—the bull-grappling scenes, of which the Thessalian *ταυροκαθαψία* may be regarded as a kindred survival.

It has been possible this season to reconstitute the remains of a fresco panel, exhibiting one of the scenes described, from the Chamber which apparently overlooked the Court of the Olive Spout, to which reference was made in the Report of 1901. This design reproduces a complete *tour de force* of the Palace Circus. A girl toreador in cowboy costume is caught under the arm-pits by the horns of a charging bull and is evidently in the act of being tossed. A youth, who seems already to have been



FIG. 39.—ARM OF IVORY FIGURE ( $\frac{3}{2}$ ).

thrown into the air, is seen performing a somersault over the animal's back, while a girl behind, perhaps intended to be standing in the middle of the arena, holds out both hands as if to catch the flying figure. In other cases, as most frequently on gems, we see various versions of the Tirynthian picture of the youth springing from above and seizing the bull's horns in cowboy fashion. It is probable that the ivory figures belong to one or other of these representations. The way in which, in two examples at least, the head and upper part of the body is thrown back closely recalls the acrobatic figure of the painted panel described, but the legs there are also both bent back, as in the execution of a backward somersault, whereas, in the case of the ivory, one is extended. It is to be noted that the flesh and muscles of the neck as shown in the separate head on Plates II. and III. indicate a downward position, and the youth reproduced on the same Plates must also be regarded as in the act of leaping down.

§ 19.—BACK ROOMS OF DOMESTIC QUARTER: UPPER-FLOOR. (THE WOODEN STAIRCASE AND ROOMS OF THE ARCHIVES AND OF THE STONE BENCH.)

The back Corridor mentioned above as leading from the Room of the Plaster Couch to the Hall of the Colonnades passes on the left, immediately before reaching the latter destination, the shell of what was beyond all doubt another staircase. This is enclosed in an oblong space, with a dividing wall between the two flights, leaving at its West end a space for the first landing. The gradual rise of the stairs is further marked by lower and higher cross walls built for their support and by landing blocks answering to those found elsewhere. The stairs themselves were in this case wanting and there is every reason for supposing that they were made of wood.

This wooden staircase was lit, so far as its first two flights are concerned, by the double window already mentioned as opening in the upper part of the South wall of the Hall of the Colonnades. Below the second flight of stairs was the closet that contained the precious deposit of ivories. At the top of this second flight to the left is another square landing block, and there can be little doubt that two more flights originally led up from this point to third storey rooms above. The landing to which this second flight of stairs immediately led gave access through a doorway—of which the two jambs remain *in situ*—to the room which originally existed immediately above the lower covered part of the Hall of the Colonnades. Like the room formerly existing above the Hall of the Double Axes, this too is thus linked on to the upper floor system of the ‘Domestic Quarter.’

Several interesting fragments of decorative fresco, including part of a triglyph frieze, had found their way into the Northern division of the staircase, partly perhaps through the window opening on the adjoining Hall of the Colonnades, and it is probable that they had originally formed part of its ornamentation. A curious slab of porphyry-like limestone, of grotesque outline, perhaps part of a seat, was also found here.

Throughout this staircase area—for the most part above the level of the first landing—were found quantities of seal impressions, generally somewhat broken. By this time however the eyes of the workmen specially trained for this task had become so quick that very few fragments escaped their first examination of the earth and remained for subsequent detection

by means of the sieve. This deposit of seal impressions was continuous with that of the adjoining corridor and extended thence to the upper strata of the neighbouring Treasure Chamber. In that case they had certainly fallen through with the collapse of the floor from the similarly shaped room answering to it above. On the other hand further seal impressions, together with some inscribed tablets referring to granaries, were found beyond the East wall of the same upper room and above the level of the balustrade of the adjoining Bath Chamber. It thus appears fairly certain that the centre whence these sealings were originally derived must be sought in this chamber which, like the Treasure Chamber below, was of the nature of a store-room, without any access or opening except a single door. At the time of the Re-occupation this, like other upper chambers near, had been used as a store-room for Stirrup Vases and amphorae of the usual 'mature' Mycenaean type, and it was probably owing to this that large numbers of seals or other earlier documents that had accumulated here were thrown out and found their way into the staircase and other adjacent nooks.

We may therefore regard this very extensive deposit of seal impressions—the most considerable yet found in the building—as having been derived from the room in question, which was evidently set apart for some kind of archives. None of these seals were countermarked like some of those found elsewhere in connexion with remains of chests containing deposits of inscribed clay tablets. On the other hand the broken condition of a large number seems to show that they were attached to documents, in many cases perhaps correspondence, inscribed on some perishable materials, such as the palm leaves, which, according to the Cretan tradition, served as the earliest material for writing.

The interesting discovery described in a succeeding Section (25) of clay cups containing for the first time ink-written inscriptions throws a new light on the character of these vanished writings.

The clay impressions include a great variety of subjects, many of which are repeated from the same seal.

Among the classes of subject represented may be mentioned the following :

Male Divinity between lions.

Seated Goddess, with lion in front on rock.

Lion-headed and other 'Daemons,' in some cases holding pointed vessel.

- Parts of cult scenes and of a shrine with sacral horns.  
 Group of four double axes, symmetrically arranged (see Fig. 61, p. 103.)  
 Griffins.  
 Composite monsters, man-goats, &c.  
 Group of three warriors with 8-shaped shields, spears and peaked helmets (see Fig. 41).  
 Group of three shields of similar form.  
 Forearm and hand holding lily spray (see Fig. 42).  
 Lion and fluted pillar.  
 Boy milking cow.  
 Scenes of the *Taurokathapsia* (see Fig. 43).  
 Animals: sometimes in groups; a great variety.  
 Flying fish.  
 A 'school' of dolphins.  
 Grains of corn.

The small fragment of a seal impression given in Fig. 40 is of special interest, as it seems to contain part of the impression of a cylinder showing late Babylonian influence.



FIG. 40.—(1.)

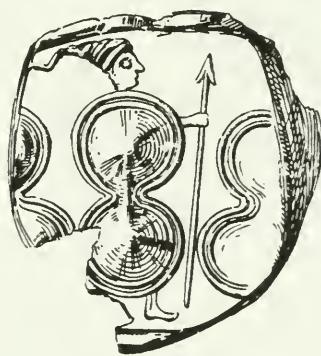


FIG. 41.—(1.)

The consideration of the religious scenes and figures—notably the Dæmons—represented on these sealings must be reserved for another occasion. The groups of warriors, such as that shown in Fig. 41, give the best idea as yet obtainable of the military side of Knossian life—which in the Palace at least is by no means in the foreground. The pointed helmet, composed of various bands, recalls a small ivory helmet found on the West side of the Palace, but in this case no cheek-piece is visible; otherwise it recalls the head-gear of a warrior on the silver vase-fragment from Mycenae. The hand and forearm grasping a lily spray seen in

Fig. 42 has a curiously modern aspect. A bracelet is seen round the wrist. The male figure (Fig. 43) performing a backward somersault over the back of a galloping bull may throw a side-light on the ivories.

The staircase wall by the adjoining upper corridor had evidently, from the character of its material, been partly reconstructed at a late period in the history of building. Here, together with the usual rubble, were a number of worked blocks—some exhibiting sawn sections, consisting of Spartan basalt or *lapis Lacedaemonius*, a rock apparently unknown in Crete, which had been imported from Mount Taygetos for decorative purposes. This material seems indeed to have been a favourite one of the Minōan gem engravers.

The upper Corridor in question had originally followed the line of the passage below from the *thalamos*, already mentioned as built over the East

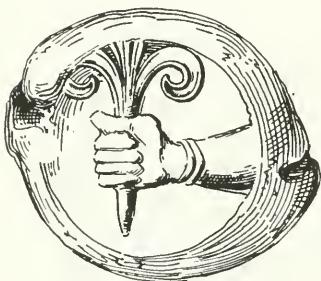


FIG. 42.—(§ 1.)

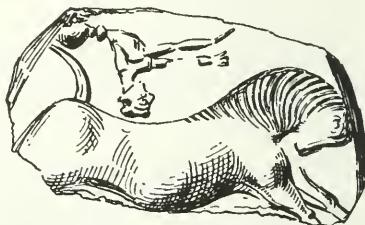


FIG. 43.—(§ 1.)

half of the Hall of the Colonnades, past the stairs and the Room of the Archives. On passing the head of the wooden staircase, we found on this upper passage a second doorway, the stone jambs of which are preserved. At this point the passage turns, like that below, leaving on the left the door of the Room of the Archives and thus approaches a chamber of which there are considerable remains, situated above that with the plaster couch, and which, from its most conspicuous feature, is here called the Room of the Stone Bench. On the lower floor the course of the corresponding passage is broken by the latrine, here however it is continuous, passing the door of the Room of the Stone Bench and a double light opening from it marked by limestone pillar bases. In this way, through another doorway, both the jambs and stone threshold of which are well preserved (see Fig. 44), it reaches the Upper Corridor corresponding to the

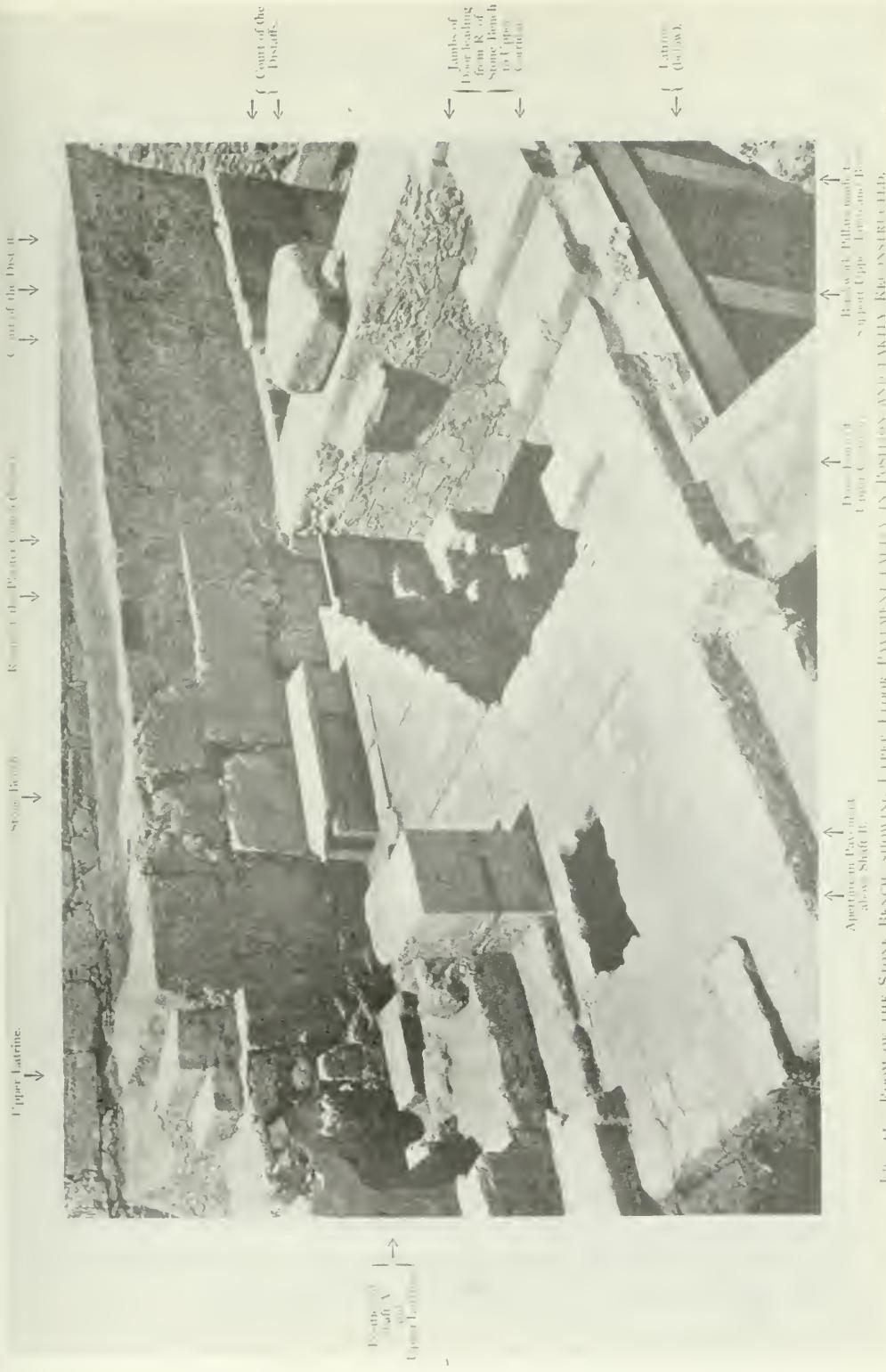


FIG. 44.—ROOM OF THE STONE BEACH, SHOWING LEFT FLOOR PAVING, LAMP IN POSITION AND A LAMP IN POSITION.

lower section that contained the painted *pithos*, and finally emerges on the system of rooms above the Queen's Megaron.

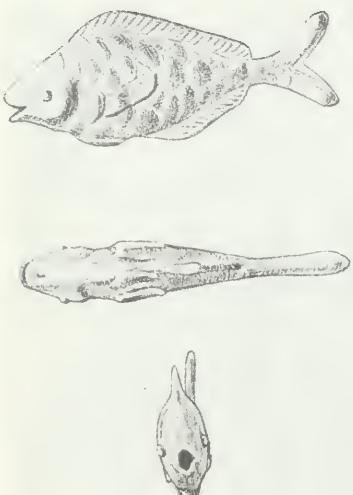
On the East wall of this Upper Corridor, flanking the room of the Stone Bench, a good deal of the original red stucco coating was still visible. The Room of the Stone Bench doubtless derived its light from a double window looking on to the Court of the Distaffs and answering to that already described on the lower floor. Considerable remains of the slabs of the upper floor were here preserved, especially near the West wall, and here the stone bench from which the room has been named still stood at its original level (see Fig. 44). It has two pilasters on its front and resembles the benches of the Room of the Column Bases and of the Throne Room. It has been possible in part to reconstitute the subsided area of the pavement (Fig. 44).

It is noticeable that, since there was no occasion to reserve so much space on the Eastern side of this room as was below occupied by the door of

the latrine, the single doorway communicating with the Upper Corridor is wider than that below, and the pillar bases thus do not correspond in position with those of the ground floor. The absence of the latrine on this side seems to have been made up for by a similar convenience in the S.W. corner of the room. There is an ascending step and doorway leading to a quite small closet from which a square stone shaft (A on plan, p. 82) descends to a drain passage below the level of the lower floor. There are strong reasons for believing that this shaft was originally continued to the level of the Central Court and received its surface waters on this side.

It would be difficult however to assign

any intelligible meaning to the small chamber which stands in such direct relation with the descending drain shaft, unless we suppose that it had an outlet into it for the passage of ordure or other waste materials. The closet seems in fact to have served as another small latrine.



On the South of the Room of the Stone Bench is a bay communicating by a doorway, both jambs of which are preserved *in situ*, with a small square alcove beyond. Beneath the floor of this annexe is a small square chamber, in the bottom of which opens another drain-shaft. This chamber could only have been approached by some kind of trap door in the floor above, marked in Fig. 44 by the break in the re-constituted pavement.

Finally, outside the double doorway of the annexe to the Room of the Stone Bench to the South, is another stone shaft going down to the drain below. Its mouth, which lay partly between the jambs of the Northern-most of the two doorways of the above room, was covered by a stone slab. Partly in the lower part of this shaft, which descends 5'3 metres, and partly in the neighbouring part of the cloaca below, were found the bone 'fish' for inlaying, with incised signs, many of them resembling the letters of the later Greek alphabet.<sup>1</sup>

Near the small upper latrine was found a gold-fish of very naturalistic execution, of which an enlarged representation is seen in Fig. 45. It is possible that this may have been taken from the Treasure Chamber.

#### § 20.—DRAINAGE SYSTEM AND SANITARY ARRANGEMENTS OF THE DOMESTIC QUARTER.

In the whole structure of the Palace, nothing is more remarkable than the elaborate drainage system that runs throughout the 'Domestic Quarter,' and adjoining halls. The stone shafts, already mentioned as descending from the upper floors, lead down to a well-built stone conduit with flat covering slabs. Throughout the greater part of its course it is about a metre in height and half that width, so that a man can easily make his way along it. The inner surface of the conduit was originally coated with cement. A plan of the shafts and neighbouring drains is shown in Fig. 46, and a section drawn through shafts A and B appears in Fig. 47.

Two short branches of this system permeate the back rooms of the Domestic Quarter, one of which starts from immediately below the shaft marked A in the plan (Fig. 46), while the other leads from a section of wall between the Quadruple Staircase and the Hall of the Colonades. Shaft A, as noticed in the preceding Section, was certainly constructed to receive the

<sup>1</sup> See *Report*, 1901, end.

surface waters of the adjacent area of the Central Court, and it is probable that a shaft or pipe ran up the wall at the starting point of the other branch of the lower conduit, which by its means received the collected

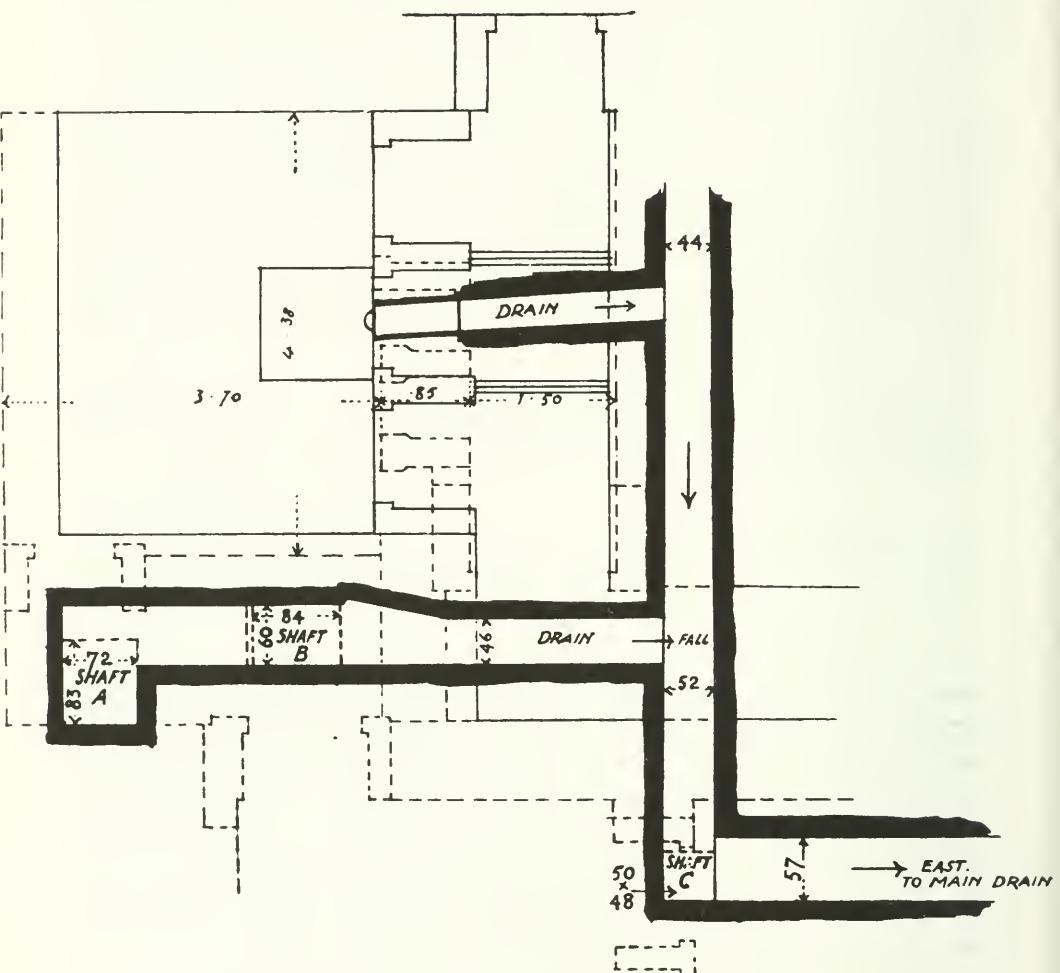


FIG. 46.—PLAN OF PART OF THE DRAINS, SHOWING POSITION OF SHAFTS A, B AND C.

drainage of the roofs of the neighbouring halls and staircase. Both branches show a continuous gradual descent with an occasional step down.

At the point where C, the Easternmost of three shafts shown in the plan,—which may also have served at times as a man hole,—strikes the

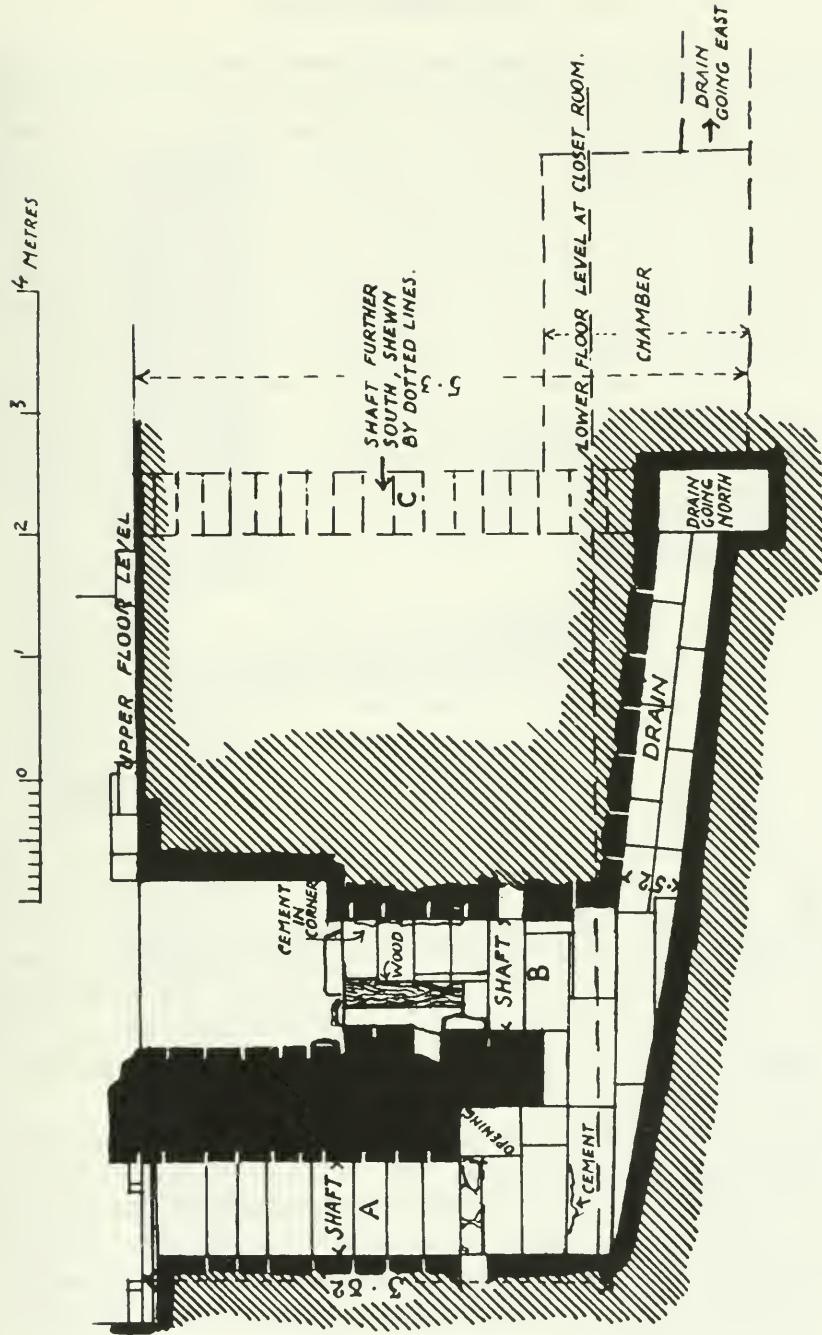


FIG. 47.—SECTION OF DRAINS WITH SHAFTS A AND B.

united course of the two short branches already mentioned, the stone conduit turns at right angles and continues in an Easterly direction, skirting the Southern borders of the Queen's Megaron, and the adjoining portico of the Hall of the Double Axes. Here it is joined by a tributary drain, the ultimate source of which was apparently the Court of the Distaffs, and which received in succession the drainage of the light wells of the Hall of the Colonnades and of the Double Axes. With each successive drainage area its capacity increases, and from the light well of the Hall of the Double Axes onwards, the passage is large enough for a man to crawl along it.

At a point about seven metres East of the S.E. pillar of the Portico of the Hall of the Double Axes another tributary stone drain runs into the main conduit from the North. In this Northern branch a quantity of painted pottery, of the finest Later Palace style, was found at the very beginning of the excavations in 1900.

Beyond this point the slope rapidly descends, and the further course of the main conduit is broken off.

In considering the elaborate drainage system of this quarter of the Palace, it is well to remember that its primary object was to afford a means of escape for the surface waters. The rains of Crete are often even now torrential, and in the Minōan Period, when the country no doubt was much better wooded, the rainfall must have been greatly in excess of what it is at the present time. The main conduit below the ground floor level of this Palace region answers both in structure and capacity to the large stone drain that runs down from the Northern Entrance Passage and which, beyond all possibility of doubt, was principally devised to effect a passage for the surface waters of that end of the Central Court. In the same way 'Shaft A' of the Eastern system received those that accumulated on this part of its area. So too the Northern of the two branches on this side seems, as we have seen, to have acted as a channel for the water collected from the roofs of the great adjoining halls.

The main conduits below were thus periodically flushed at times with a great force of water, and facilities were in this way afforded for the removal of ordure and waste materials. Of these facilities the Minōan architect skilfully availed himself by bringing into connexion with this system of surface water drainage various conveniences of a sanitary nature, some of which in their elaborate character can hardly find a parallel in the Ancient World.

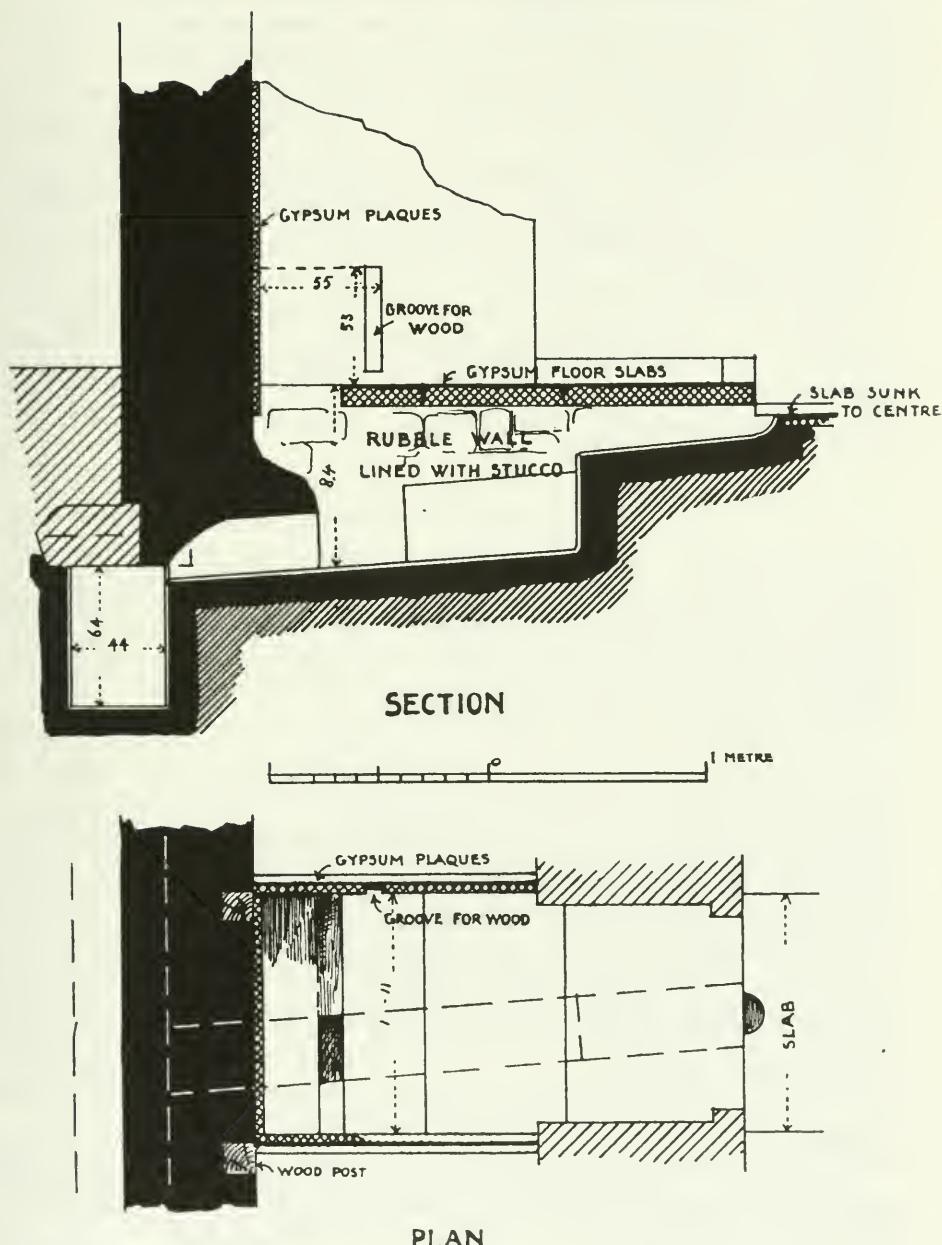


FIG. 48.—PLAN AND SECTION OF LATRINE.

It has already been noticed that shaft A passes on the second floor through a small detached chamber, which may partly be supposed to have served the purpose of a latrine. As to the usage to which shafts B and C were put, the evidence is not so clear; it may however be assumed that they served the purpose of modern sinks, perhaps in one or the other case in connexion with culinary preparation. The convenience of either as a man-hole giving access to the main conduit below is also obvious, the descent to it by this means, as I know by personal experience, being by no means difficult.

But the most elaborate structure in connexion with the drainage system is unquestionably to be found in the small closet, with its partition walls on either side consisting of double slabs of gypsum, that opens off the Room of the Plaster Couch. There can be no doubt that this small chamber served as a latrine.

The interior arrangement of this closet will best be gathered from the plan and section (Fig. 48). From the groove indicated in the wall-slab there seems to have been a wooden seat at the back of the compartment, apparently with a stone foot-rest in front of it like that on which the throne stands. The height of the seat moreover, allowing for its upper slab, would have been about 57 centimetres from the ground or, within a centimetre, the same as the throne.

Up to a little beyond the outer line of this seat, the latrine is paved with gypsum slabs; but beyond this limit the stone pavement ceases and this space seems to have been in part at least open, thus giving access to a drain passage below. This drain passage on the one side communicates by a small opening with the North branch of the main drain, on the other by a sloping channel with a hole in the pavement slab outside the closet door, which seems to have been made use of as a means of flushing this channel. It is to be observed that the entrance to the main drain is not below the middle of the seat, but on one side of it. It looks as if this asymmetrical arrangement was devised to leave a space on the other side of the bench upon which to rest a water vessel for flushing the main opening of what must certainly have been a latrine.

The curious curved projection coated with cement which juts forth from the wall immediately below this main opening is very enigmatic. It may almost be suspected that there was here a balance flap.

In any case it may be taken as certain that both the apertures were

closed externally by slabs, like the drain-shaft C when discovered, to prevent the effluvia of the drains from penetrating into the adjoining rooms. In this connexion it may be observed that the high shafts such as those originally leading to the level of the Central Court and of the roof would have afforded excellent ventilation for the main drains, promoting as they must have done a constant circulation of air below. These main conduits were continually flushed during a great part of the year, and it must be remembered that, as in the case of the filling and emptying of the large bath basins, slave labour was probably available for clearing out the impurities from the passages during the dry season. The shafts, as already noted, formed excellent man-holes and the main drains are so roomy that two of my Cretan workmen spent days within them clearing out the accumulated earth and rubble without physical inconvenience.

#### § 21.—THE PLASTER VASE CLOSETS.

Immediately South of the rooms of the Domestic Quarter with the descending shafts is an interesting group of small rooms with adjoining store-closets. The ground floor of these, as in the case of all this Southern zone, is on the higher level corresponding with that of that Olive Press and connected system on the North, and of the neighbouring upper rooms of the Domestic Quarter.

On the North border of this group of rooms are six steps of a narrow stone staircase<sup>1</sup> which must originally have led to the level of the Central Court. The upper course of this staircase ran above the end of an inner paved chamber with part of a stone bench remaining against its North Wall, and to which there is at present no visible access. On the floor of this room and in two adjacent chests or closets were found a series of vases belonging to the earliest period of the existing Palace, and tending to show that not long after its construction the chamber had been filled in or its access blocked.

A narrow passage, 60 centimetres in width, flanking the staircase, gave access to another smaller paved room which, from its square form and the remains of gypsum lining slabs attached to its walls, somewhat resembled one of the Palace bath basins. On the West side of its entrance was a small niche.

<sup>1</sup> The steps are 72 cm. wide, their riser 12, and tread 27.

The inner chamber was flanked on two sides by closets of a remarkable character. The exterior walls of these are thin partitions, composed of hard red stucco,<sup>1</sup> with a kind of terracotta plaster core—the whole only 12 centimetres, or about 4½ inches, thick. The more roomy of the two



FIG. 49.—FALSE-LIPPED JAR USED AS COVERING OF AN INTERMENT, WITH SKULL.  
(Height, 58·3 cm.; diam. 47·75.)

closets contained three large jars with a plain brown surface with white bands,<sup>2</sup> two of them characterised by a false spout on the rim—a special feature of the later Minōan pottery. An interesting discovery made on the opposite side of the valley shows that jars of this type were occasionally

<sup>1</sup> 1·06 in thickness.

<sup>2</sup> The taller of these is 1·10 metres high.

used for sepulchral purposes. The accidental circumstance of a cow putting its foot through its bottom, revealed the existence there at a spot North-East of the Palace, of a jar of precisely similar form (Fig. 49) which had been placed upside down in a round hole just sufficient for the purpose, above the remains of a child and a few smaller pots of a plain character. This as yet isolated discovery<sup>1</sup> is the only interment of the Palace Period that has as yet come to light on the site of Knossos.

Near these *pithoi* was an elegant one-handled vase (Fig. 50, middle),



FIG. 50.—VASES FROM PLASTER CLOSET OF EARLIEST PERIOD OF LATER PALACE.

with white bands and traces of flowers and foliage on a purplish brown ground, 43 centimetres in height, while at various points on the pavement of the room itself were scattered other small vases, some of characteristic early form.<sup>2</sup> With them was also a steatite 'pyxis' and a triton shell.

The contents of the other plaster chest were still more remarkable.

<sup>1</sup> Careful researches in the neighbourhood of this tomb did not result in the discovery of any further interments.

<sup>2</sup> E.g. a plain vase, shaped like those represented in Figs. 13 *a* and 13 *b* above—the commonest 'Kamáres' form.

It contained, besides the remains of a jar, resembling the above mentioned, with a 'false' spout on the rim, a whole collection of pots belonging to the same period, most of them well preserved, and a white marble bowl with four ear-like handles. Two of these vessels, a tall jar with four handles round its rim, and a kind of candlestick, to be described below (Fig. 51, 2, and Fig. 52), were in colour and ornament indistinguishable from the Late Minōan class of painted ware found in the basement room described above, together with the remains of the Terracotta Sanctuary. Their decoration consisted of white continuous spirals on a dark brown ground. It will be seen from this that the earliest ceramic fabrics of the Later Palace fit on without a break to those of the earlier building to which apparently the room containing the Terracotta Sanctuary belonged, and it will be remembered that the early pottery found in the 'Kaselles' shows the same affinities.

In the present deposit, however, as in the Kaselles, elements of transition are found which are not visible in the earlier Palace. In addition to the vases with the white spirals on a dark ground there came to light<sup>1</sup> a small bowl with a red continuous spiral on a buff ground (Fig. 51, 3) which, except that the surface of the vase was dull, recalled 'proto-Mycenaean' types.

The plaster chest also contained a number of cups preserving to a certain extent the outline of those belonging to earlier strata, though of rougher and heavier construction, with plain clay walls occasionally streaked or lined with black or blue showing a slight glaze.<sup>2</sup> Among other forms represented were tripods (Fig. 50) approaching those of the North-East Magazines, the wide mouthed jar (Fig. 51, 8), a jug with a single handle and elevated spout (Fig. 50),<sup>3</sup> an elegant vase with a quatrefoil outline (Fig. 51, 5), and a whole series of tall two-handled jars piled in nests, which, so far as form is concerned, also recalled a common type of the North-East Magazines.

These latter jars, as well as the quatrefoil vessel, presented a decorative feature already referred to as exhibited by the painted vase found in the other plaster closet. Upon the sides of these vessels, in the case of the

<sup>1</sup> This lay just outside the chest, but may originally have been contained within it.

<sup>2</sup> That shown in Fig. 51 is 7·3 cm. in height and 8·8 in diameter. Its ground colour is a warm buff with a dull surface, with black, slightly glazed streaks.

<sup>3</sup> 23 cm. in height.

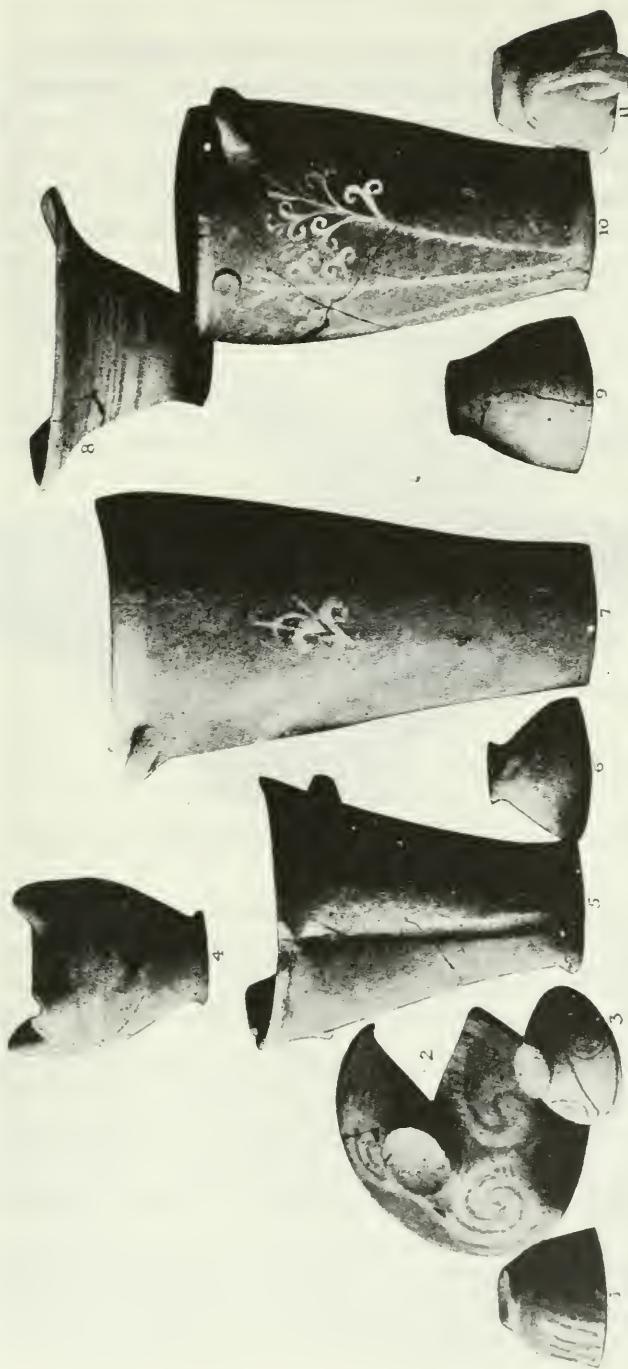


FIG. 54.—VASES FROM PLASTER CLOSER OF EARLIER PERIOD OF LATER PALACE.

quatrefoil vase upon a purplish red ground, in that of the jars (see Fig. 51, 7, 10)<sup>1</sup> upon the terracotta surface of the pots themselves, sprays and groups of lilies, showing both the flowers and foliage, are painted in white in a most naturalistic fashion. These picturesque and beautiful floral designs, so freely drawn, represent the complete emancipation of the ceramic artists from the more geometric traditions of the earlier Minōan art, and become henceforth a distinctive feature of the Later Palace style. It is only in its latest phase that they show a tendency to be absorbed in a decorative conventionalism, intensified no doubt by increasing intimacy with Egyptian models.

The lily itself was the favourite Palace flower. On a fine fragment of wall-painting, found at the close of the present season's work near the



FIG. 52.—PAINTED EARTHENWARE CANDLESTICK FROM PLASTER CLOSET.

South-East staircase, we have a glimpse of a whole field of lilies with white flowers and buds, yellow pistils and stamens and green foliage on a red ground, while, lest any natural touch should be wanting, the petals are in some cases shown half blown off by the wind. From the lily spray in the hair of the seated Goddess on the great signet ring from Mycenae, it seems probable that the flower had a religious association. In its more conventionalised form as a fleur-de-lis, we see it supplying the decoration of the crown and collar of the painted bas-reliefs and as a foot ornament of the youth of the Procession Fresco, who is in immediate attendance on 'the Queen.'

Among the forms of vessel found in the plaster chest, that referred to

<sup>1</sup> Fig. 51, 7, is 33 cm. high and has a reddish brown ground. Fig. 51, 10, is 25·5 high with similar ground.

above as a 'candlestick' is specially noteworthy. Its under side with the white spiral decoration is shown in Fig. 51; and the upper side with a socket, much resembling that of a modern candlestick, is seen in Fig. 52. Both the size of the object and the fragile character of the material show that it was not a torch holder and there can be no reasonable doubt that this, like certain analogous forms of classical antiquity,<sup>1</sup> was intended to

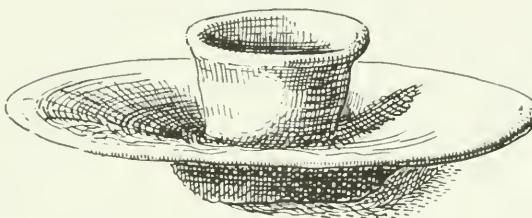


FIG. 53.—EGYPTIAN CLAY CANDLESTICK FROM FOURTH DYNASTY TOMB.

hold some kind of wax candle. But the characteristic form and the expanding socket take us back to a much earlier parallel,<sup>2</sup> and the most literal prototype of this clay utensil, like those of so many of the Minōan stone vessels, is supplied by the old Empire of Egypt. Fig. 53 shows a sketch of a similar clay candlestick from a Fourth Dynasty tomb. Attention will be called, in a succeeding section, to the accumulating indications of a direct contact between Minōan Crete and early Dynastic Egypt.

#### § 22.—COURT OF THE SANCTUARY; SHRINE OF THE DOUBLE AXES, AND LABYRINTH FRESCO.

Both the rooms with the plaster closets and the whole upper system of the Domestic Quarter seem to have been approached on the South-East from an open Court of elongated form. The West side of this Court is flanked by a self-contained quadrangular block of small chambers through the centre of which runs a double gangway leading at its inner extremity into a corridor that runs round the Western and Northern sides of the block

<sup>1</sup> For examples of these, see M. Saglio's article 'Candelabra,' *Dictionnaire des Antiquités*.

<sup>2</sup> A somewhat analogous form of clay utensil, but with a larger socket, is found in Cyproite Tombs of the sixth century B.C. Others were found at Lachish.

in question. The two parallel gangways that traverse the centre of this group of structures open on to the Court by a double doorway, immediately in front of which are the remains of a stone altar-base of the kind found elsewhere in the Palace. From the significant position of this altar-base and from the religious character of one at least of the chambers that stand in immediate relation to it, the elongated area in which it is situated has been here named the 'Court of the Sanctuary.'

The passages bounding the rectangular block of buildings to the North and West were both productive of interesting finds. In the lateral passage to the North were brought to light, above the floor level, a large number of perforated clay loom weights, more globular in form than those of the deposit from the earlier Palace rooms described above (p. 24), together with spools of the same material for winding thread. These had fallen from an upper storey room where the loom (*ἐργαστήριον*, as it was called by our workmen) must have been situate. We have here an indication of women's chambers.

In the back passage to the West—also above the floor level—were found a series of inscribed clay tablets, some of them well preserved, including two almost complete documents containing lists of men. Clay seals were also found with them, one, which had evidently secured the chest

containing these personal records, countermarked with the 'Man'-sign. Altogether new was a class of tablets—two with complete and others with fragmentary inscriptions—referring to swords. The pictorial figures of the weapons on these tablets are of special importance as they illustrate two distinct forms of blade, one the old Cretan and Aegean type, triangular in form, Fig. 54, *a*, the other leaf-shaped, Fig. 54, *c*, besides a more or less intermediate class, Fig. 54, *b*.

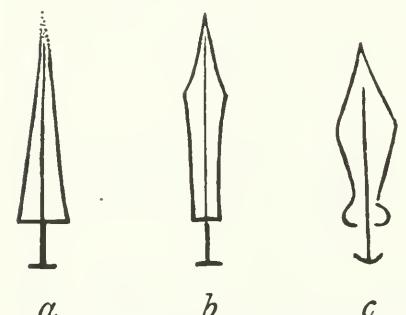


FIG. 54.—TYPES OF SWORDS INCISED ON TABLETS.

The presence of the leaf-shaped form in the Palace is of great interest, as there can be little doubt that it is of Northern origin. It is not too much to say that the whole chronology of the European Bronze Age is affected by this discovery, which shows that this leaf-shaped type of sword had

been developed before the approximate date of 1400 B.C. These tablets were probably derived from deposits originally existing in rooms of the upper terrace level, South of the Central Court, along the borders of which runs the passage in the upper strata of which they were found. On or near the paved floor-level of this passage occurred glazed pottery of the proto-Mycenaean ('Transitional Minōan') class. One is a high-spouted vase with spiral decoration recalling that of a 'funnel' vase with perforated bottom from the Second Shaft-Grave at Mycenae.

The double gangway opposite the altar-base communicates on the South with the small bath-chamber already brought to light in the course of an isolated excavation in 1901.<sup>1</sup> Five steps, flanked by a parapet ending in a pillar-base, descend to a square basin ( $2\cdot20 \times 2$  metres). As noted in my previous Report this shallow basin must have been used in the Oriental fashion for washing the feet and it looks as if in this case it had performed a lustral function of a religious kind.

An opening in the central dividing wall of the double gangway immediately opposite the entrance to the bath gives access to its Northern passage, in which, a few metres further on, appear the stone jambs of a doorway leading to a small square chamber.

The passage off which this small chamber lay was paved with limestone slabs and opened, by a doorway with two gypsum jambs, into the 'Corridor of the Sword Tablets.' In both these passages the floor had risen 25–30 centimetres, so as partly to obscure the jambs of the doorway, and the same rise in the floor level was visible in the adjoining chamber. As pottery of good Palace Period lay on the original level, it seems probable that the higher floor level here represents that of the latest period during which this part of the Palace was occupied. This conclusion was fully borne out by the character of the ceramic types found in the adjoining room.

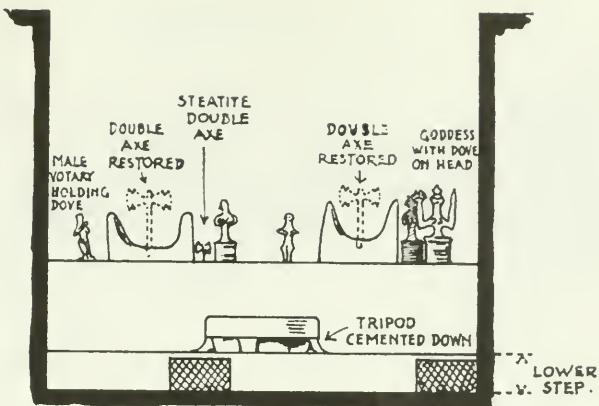
The small square chamber proved to be an actual Palace Shrine with the vessels of offering, votive figures, idols, and cult objects still in position as they were left when the site was finally deserted. The room itself was of very small dimensions—a circumstance quite in keeping with other indications as to the size of shrines of Mycenaean date. It was only one and a half metres square.

<sup>1</sup> See *Report 1901*, pp. 62, 63. The plan, Fig. 19, on p. 62 requires correction, the Northern passage of the double gangway not being blocked as there indicated.

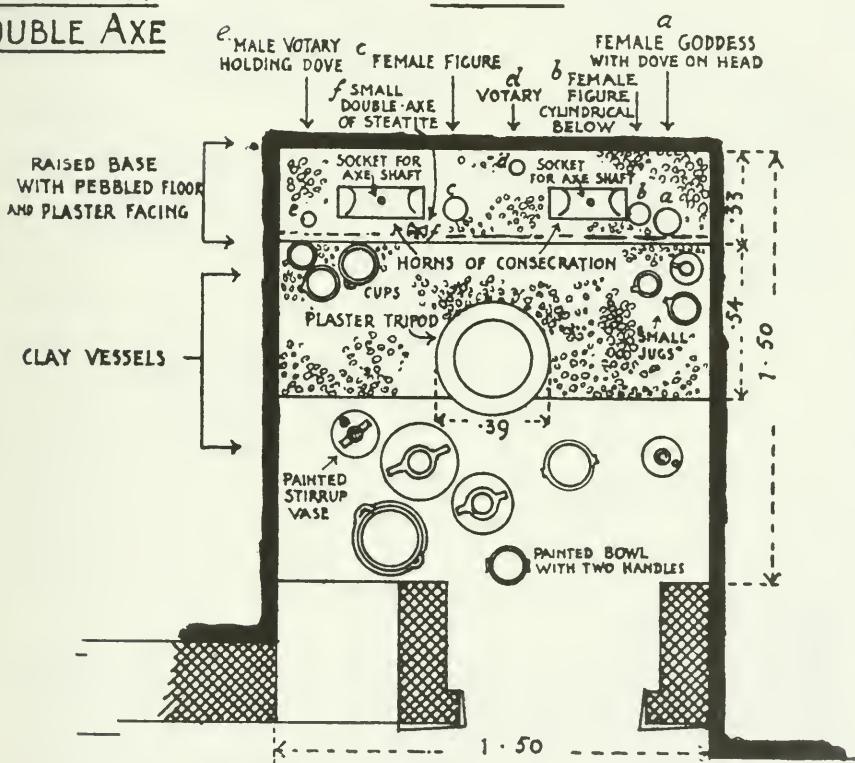
The little Shrine was divided into three parts (see Plan, Fig. 55). The body of the room, with a plain stamped clay floor, was occupied by a variety of vessels standing in the position in which they had been left by the last occupants. Two of these, a tall plain jar with an oval mouth and a tripod pot, were practically indistinguishable from the ordinary rustic vessels of the good Palace Period. A stirrup-vase, however, with a good glaze and a painted design consisting of octopuses with conventionalised tentacles forming a kind of waved maeander presented a characteristic type of the later Period of partial occupation. A kind of bowl with a flat bottom and two upright handles, showing painted decoration in the shape of plain brown bands on an ochreous ground also belonged to the later ceramic class.

Beyond this area, where stood the larger vessels of offering, was a somewhat raised dais with a pebble floor, fixed in the centre of which was a plaster tripod with a slightly hollowed upper surface which had evidently served as a table of offerings (see Section, Fig. 55). In form and construction it recalled a similar object, which however was flat at top and seems to have been rather a stand than a table, found, with vases belonging to the good Palace Period, in a small store-room near the North-East Magazines. It was observable that the feet of the plaster tripod in the Shrine were embedded somewhat deeply in the slightly raised dais, and this circumstance tends to show that it had been already in position before the floor level rose to its present height. On the pebble dais on either side of the tripod were some cups and smaller jugs.

Immediately behind the dais and table of offerings a raised base about 60 cm. high ran from wall to wall. It was of clay and rubble construction with a plaster face much decayed, which it has been necessary to restore in order to keep the upper part from ruin. On the ledge thus formed were fixed two sacral horns of white coloured stucco with a clay core, and on either side of these stood a series of painted terracotta figures representing votaries and divinities (see plan, Fig. 55, and Fig. 56, *a*, *b*, *c*). The figures, though belonging to the mature Mycenaean period, showed, alike in their pose, the character of parts of their ornament, and their rude appearance, an old religious tradition. This was especially noteworthy in the case of a female votary, whose eyes, mouth, hair, and ornaments were rendered by means of punctures and triangular incisions filled with a white inlay, consisting of pounded gypsum, like the rude clay images from the



## SHRINE OF DOUBLE AXE



## PLAN

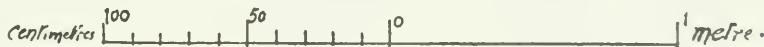


FIG. 55.—PLAN AND SECTION OF SHRINE OF THE DOUBLE AXES.

Neolithic stratum beneath the earliest Palace. Her arms, moreover, were clasped over the breast in the primitive fashion, while her half sitting posture also suggested a distant reminiscence of the Neolithic images of Knossos. The idols proper, three in number, were all of the female sex, of better fabric than the last described, and showing a slight glaze, like the contemporary painted vases. They are distinguished from the representatives of the votive class by the fact that they are only semi-anthropomorphic, the body in each case rising from a clay cylinder, which looks like a survival from the columnar form of the earlier 'baetylic' stones. Except for a small round hole the cylinders were closed below.

Two of these idols are of much the same type, though in one case the Goddess's head is turned on one side (Fig. 56, height 17·5 centimetres). The companion figure has a plant design painted on the back. A kind of pig-tail hangs down in each case from the back of the neck, and other locks are visible about the shoulders. The hands curve up over the breasts, as in the case of some figures from Mycenae. A type with a conical base, allied to these latter, extends to the Danube.<sup>1</sup>

The most remarkable of these images, however, is a Goddess with both hands raised, one palm outwards, the other in profile, each with a dark band drawn across it. She seems to be clad in a kind of bodice, and wears necklaces and armlets, while on either wrist is a narrow circlet with a disk like that on the wrist of the Cup-Bearer. The meaning of this disk is sufficiently explained in the painting by the indication of agate veins, and here as there it evidently stands for an engraved lentoid gem. Round the top of the cylindrical base runs a zone of curved lines, like a succession of C's—a simple decorative motive which is very characteristic of the 'proto-Mycenaean' style of Knossos, and on which in turn it was taken over from the 'Middle Minōan' ware of the earlier Palace.<sup>2</sup> The figure is 22 centimetres in height.

But the most interesting feature of this image remains to be described. On the head of the Goddess, just as on the fetish columns of the more ancient Sanctuary described above,<sup>3</sup> is settled a dove. I have elsewhere pointed out the religious importance of such conjunctions as indicating the

<sup>1</sup> Compare the figure in the Belgrade Museum found near Kostolatz (S. Reinach, *La Sculpture en Europe avant les Influences Gréco-Romaines*, p. 31, Figs. 78, 79). It was found with a bucchero vase of Bronze Age character showing spiral reliefs.

<sup>2</sup> For an example see above, p. 27, Fig. 13 b.

<sup>3</sup> See p. 29, Fig. 14.



FIG. 56.—HOLES AND VESSELS OF PAINTED TERRACOTTA FROM SIRINI.

descent of the divine spirit on the earlier baetylic object of worship.<sup>1</sup> Here we see the dove-sanctified column become a 'Dove Goddess,' analogous to the gold figures found at Mycenae, the cylindrical base, however, in the present case preserving a record of the earlier columnar form. It is the same old Minōan cult in gradual course of transformation.

In direct relation with the Lady of the Dove stands a male figure, 17·2 centimetres in height, found on the opposite side of the base, who is holding out a dove as if to offer it to the Goddess, and must evidently be regarded as a votary. He stands on a small flat base and wears a loin cloth, recalling that of some votive bronze figures from the Dictaeian Cave, and what looks like a tunic, laced behind. The figure is of solid clay, the colouring reddish-brown on a pale ochre, but with no trace of glaze.

But the central objects of cult in this small shrine were of the old 'baetylic' kind, to which even the semi-anthropomorphic images seem to have been subsidiary. The stucco horns representing the familiar cult objects elsewhere described by me as the 'Horns of Consecration,'<sup>2</sup> and which, as we have seen<sup>3</sup> from the examples supplied by the terracotta Sanctuary, go back at Knossos to the date of the earlier Palace, are the regular accompaniment of the most ancient objects of cult. They appear at the base of Sacred Trees and Columns, and—what is still more pertinent in the present connexion—the sacred Double Axe is also seen rising from between the horns of this cult object, as elsewhere from between the actual horns of a bull's head. In my monograph on the *Mycenaean Tree and Pillar Cult* a design is reproduced from a painted vase found at Old Salamis, in which a double axe rising from 'Horns of Consecration' is seen between two bulls' heads with similar axes.<sup>4</sup> Since then a remarkable illustration of the same ritual practice has been supplied by a painted larnax found at Palaeokastro, Crete,<sup>5</sup> upon which the sacral horns with the Double Axe are seen rising from a slab with columnar support, the fetish pillar and weapon being thus combined.

That the pair of sacral horns on the raised base of the Knossian

<sup>1</sup> *Mycenaean Tree and Pillar Cult*, p. 7 (*J.H.S.* 1901, p. 105), *The Dove Cult of Primitive Greece*. In another form we see a survival of this bird-inspiration in the Eagles carved above the twin pillars of the Arcadian Zeus Lykaios (*op. cit.* p. 29 [127], or the Eagle engraved on the conical black stone of the Mountain God of Emesa, as seen on the coins of Helagabalus.

<sup>2</sup> *Mycenaean Tree and Pillar Cult*, § 15.

<sup>3</sup> See above, p. 30 *seqq.*

<sup>4</sup> *Op. cit.*, p. 9, Fig. 3. [*J.H.S.*, 1901, p. 107.]

<sup>5</sup> Found by Mr. J. H. Marshall, to be published in the present volume of the *B. S. Annual*.

shrine served the same religious purpose as those depicted on the 'larnax' and the vase is made evident by the following circumstance. Midway between the two horns in each case is a round socket for the shaft of the axe, and lest there should be any remaining doubt as to the character of the cult here represented, a small Double Axe of steatite (Fig. 57) was actually found resting against the left pair of horns. The miniature dimensions of this weapon preclude the possibility of its having been one



FIG. 57.—MINIATURE DOUBLE AXE OF STEATITE FROM SHRINE (*slightly enlarged*).

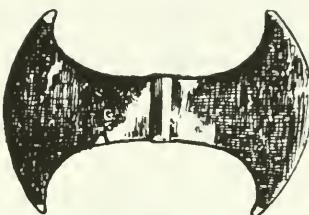


FIG. 58.—MINIATURE DOUBLE AXE OF BRONZE WITH GOLD PLATE ATTACHING (*slightly enlarged*).

of the pair set up in the sockets of the horns. These were doubtless of bronze, gold plated perhaps like the small double axes found in the neighbouring Treasure Chamber (Fig. 58), and, like almost all objects of metal, would probably have been carried off at the time of the final desertion of the site.

The small axe of steatite may be regarded as having a votive significance in the sense in which small images—in this case a fetish image—can be offered to the divinity. Its reduplicated ends are an interesting feature, and, like the pair of sacral horns, suggest a dual cult. It will be remembered that a similar reduplicated double axe appears in the field on the great signet of Mycenae between the seated Goddess and the descending warrior God.

The presence of the female idols on the same base as the Sacral Horns and Double Axe seems to show that this symbolic weapon was associated here with the cult of a Goddess as well as a God. A roughly engraved steatite lentoid found near the Court of the Oil Spout shows in fact an axe of the same reduplicated form in the hands of what appears to be a female divinity (Fig. 59). An interesting mould of schist found near Siteia in Eastern Crete<sup>1</sup> exhibits moreover in addition to Sacral Horns

<sup>1</sup> S. A. Xanthondides, 'Εφ. 'Αρχ., 1900, p. 26 *seqq.* and Plates 3, 4.

and two Double Axes with curiously cuspated sides—perhaps an out-growth of the ‘reduplicated’ type—two figures of what again seem to be female divinities, each of which holds a Double Axe aloft in either hand. The accumulating proofs supplied by signets, gems, and seal impressions of the cult of a divine pair in Minōan Knossos, not infrequently associated with lions, make it probable that the cult of the Cretan Zeus was here linked with that of Rhea, the ruins of whose temple with its sacred Cypress Grove was pointed out at Knossos in later days.<sup>1</sup> The Double Axe, the proper emblem of the male God, was also common to the Goddess—just as in Asia Minor it survived in the hands of the Amazons—and

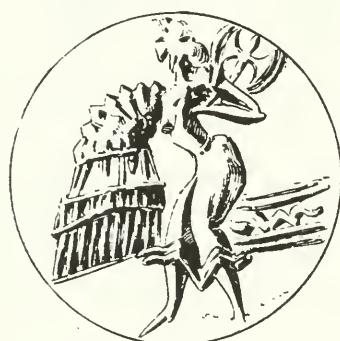


FIG. 59.—GODDESS WITH DOUBLE AXE ON STEATITE LENTOID (†).

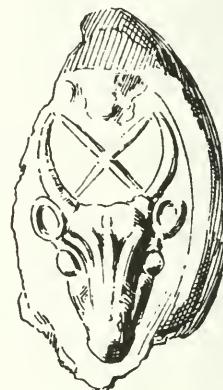


FIG. 60.—CLAY SEAL IMPRESSION SHOWING DOUBLE AXE BETWEEN HONDS OF BULL (‡).

there are indications that of the two it was Rhea who took the precedence in Minōan cult. This is quite in keeping with the surviving Cretan traditions of Rhea and the infant Zeus.<sup>2</sup>

In addition to the evidence supplied by the small Shrine, a whole series of recent finds within the Palace has brought the exceptional sanctity of the double-axe into additional relief. Mention has been made of miniature axes of gilt bronze from the Treasure Chamber, and of the seal with

<sup>1</sup> Diod. *Lib.* V. c. Ixv. 1.

<sup>2</sup> In *Mycenaean Tree and Pillar Cult*, p. 70 [*J.H.S.*, 1891, p. 168], I had already ventured to remark: ‘It is probable that in Mycenaean religion as in the later Phrygian the female aspect of divinity predominated . . . The male divinity is not so much the consort as the son or youthful favourite. The relationship is rather that of Rhea than of Hera to Zeus, of Adonis rather than of Ares to Aphrodite . . . the God is either in the background as on the great Akropolis ring or holds a secondary place, as when he approaches the seated Goddess.’

the axe-holding Goddess. An interesting seal impression from the Court of the Oil Spout shows a bull's head with the sacred emblem worked in between its horns (Fig. 60), while on another impression from near the Room of the Archives, four double-axes are seen symmetrically grouped round a central rosette (Fig. 61). Fresh examples of Mycenaean pottery of the Palace style occurred on which ornamental figures of the Double Axe take the place of the ordinary decorative motives. In the rubbish heap of the South-East Court bordering the Court of the Sanctuary, moreover, fragments of clay vessels belonging to the earliest period of the existing Palace were found with this religious symbol incised on their handles.<sup>1</sup>

The overwhelming evidence now forthcoming of the importance in the Palace cult of the Double Axe, the Carian *labrys*,—emblem of the kindred Zeus of the Asianic regions—must be taken to supply strong support from the archaeological side for the connexion suggested by Kretschmer and Max Meyer on philological grounds of *labrys* and *Labyrinthos*. That the *labrys* symbol should be the distinguishing cult sign of the Minōan Palace makes it more and more probable that we must in fact recognise in this vast building—with its maze of corridors and chambers and its network of subterranean ducts—the local habitation and home of the traditional Labyrinth.

That the Labyrinth in Art was already known in the walls of the later Palace we have now the proof in an interesting discovery made in what appears to be the remains of a corridor on the terrace immediately below the East Portico of the Hall of the Double Axes. The fallen plaster here showed the remains of an elaborate series of mazes painted in a reddish brown on a white ground (Fig. 62). The Labyrinth figures here, though belonging to the same class, are more complicated than those on the archaic coins of Knossos, the Minotaur upon which is also, as has been shown in the last Report, an heirloom from Minōan times. A simple key or meander pattern appears on some of the sealings found by Mr. Hogarth at Zakro. A still earlier example of the same class occurred in a magazine of the Earlier Palace together with fine 'Middle Minōan' pottery on the

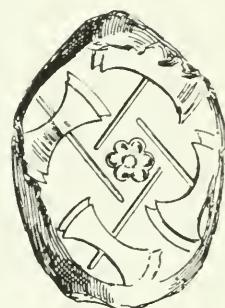


FIG. 61.—CLAY SEAL IMPRESSION WITH FOUR DOUBLE AXES (‡).

<sup>1</sup> The only other mark found on the pottery here was a T sometimes placed on its side.

East slope. The source of these meander designs, and ultimately of 'the Labyrinth in Art,' will probably be found in a curious class of

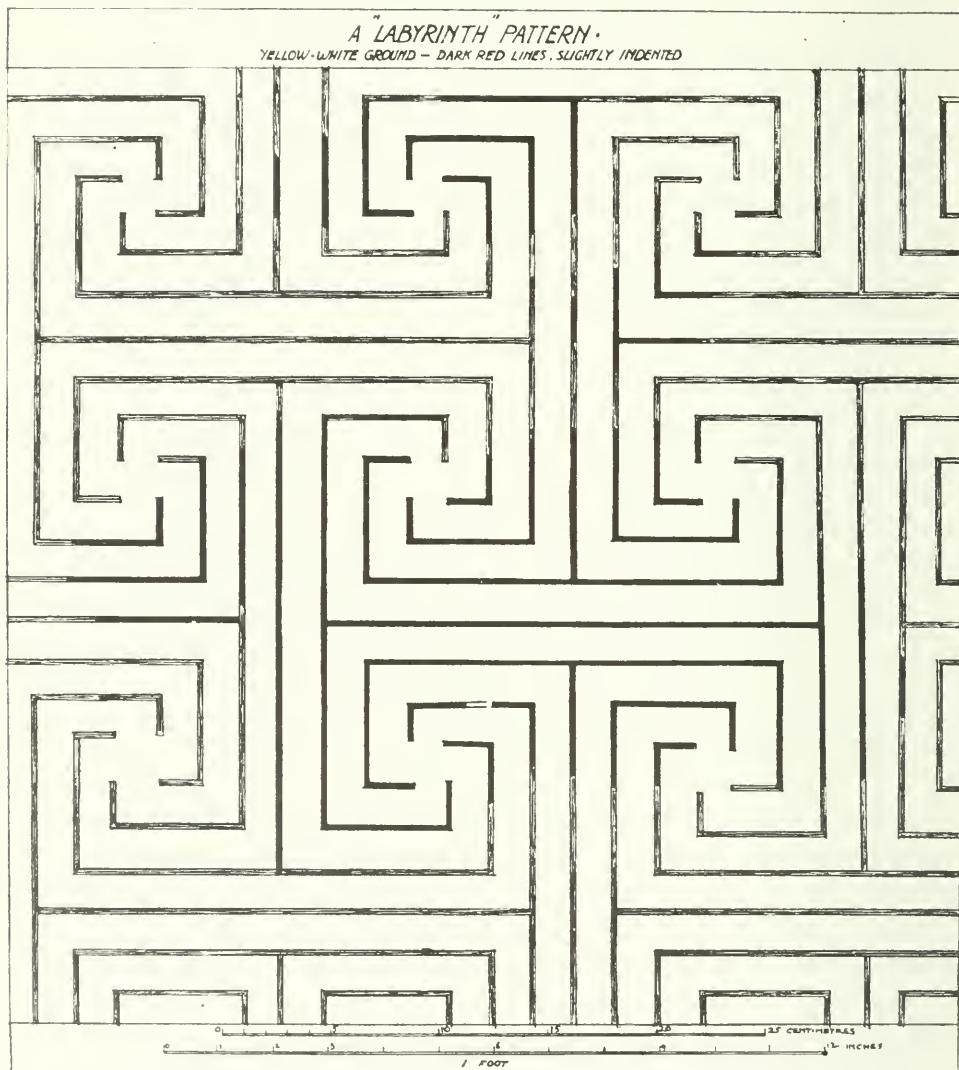


FIG. 62.—WALL-PAINTING CONSISTING OF LABYRINTH PATTERN FROM CORRIDOR E. OF HALL OF DOUBLE AXES.

Egyptian button-seals, dating from about the VIth and VIIth Dynasties, on which similar designs predominate.

Between the small Shrine and the Court of the Sanctuary were two square chambers of similar dimensions, one opening on the Court, which had been completely cleared of their contents. It is possible that there was originally—in accordance with the tripartite division visible in the Temple fresco and the Dove shrines of Mycenae—a group of three small cells devoted to a similar cult. From the presence of altars like those near the wall of the West Court and that by the Southern Propylaea as well as from other indications, it may be inferred that there were several similar shrines within the Palace area. Each quarter of the Palace may well have had its special sanctuary, and the Temple Fresco leads us to infer that some of these were more showy erections (though still of exiguous dimensions) than the humble cell of the South-Eastern region.

The contents, however, of the present Shrine derive a special interest from the decadent period to which the bulk of them belong, since they afford a convincing proof that essentially the same religious cult that we have seen illustrated by the terracotta Sanctuary from the Earlier Palace, survived to the very latest period of occupation. This religious survival can indeed be carried a step further in other parts of Crete. A close parallelism is visible between the cylindrical-based female images here brought to light and those from a shrine of still later date, found by Miss Harriet Boyd in the Mycenaean settlement at Gournià, in the Province of Mirabello. The female images there found were of plain clay and much larger and coarser. They had snakes coiled about them and small attachments in the shape of the Sacral Horns. In this case, too, a plaster tripod had been placed in front of the figures. Still later and very rude versions of the same religious type were found by Dr. Halbherr in the Sub-Mycenaean cemetery of Prinià, near Gortyna.

#### § 23.—SOUTH-EAST COURT AND RUBBISH HEAP.

South of the Court of the Sanctuary, on a lower terrace level, is another oblong Court or Yard, here called the South-East Court. It is enclosed by walls on three sides, that to the West supporting an ascending staircase of which some steps remain. This open space seems to have been largely used as a receptacle of rubbish, and the amount of ordinary clay cups of the Later Palace style found here at the beginning of the excavations in 1900 led the workmen to name it the *Kaφενεῖον*. The deposit of pottery

included in its lower stratum many fragments of 'Kamáres' ware probably dating from the Earlier Palace. On the necks and handles of some of the plain pottery belonging to the early period of the Later Palace were found the marks already referred to in the shape of T's and Double Axes of earlier and later form. This pottery answers in fabric to the plainer vessels found in the Plaster Closets, and others from the North-East Magazines and elsewhere, and the close correspondence presented by some of the vases with those found at Phylakopi marked in a similar way is a significant sign of contemporaneity. A fragment, with traces of streaked colouring, in the style of the North-East Magazines, found in the same stratum of the South-East Court, is of interest as showing part of a graffito inscription, the characters of which though linearised seem rather to fit on to the Pictographic System.

#### § 24.—REMAINS OF EARLIER BUILDING TO SOUTH-EAST.

Immediately East of the South-East Court were excavated a series of deep chambers and cell-like compartments of simple construction, evidently

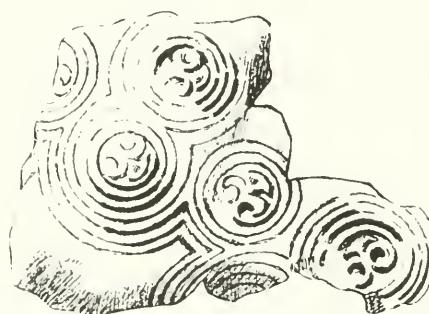


FIG. 63.—CLAY SEALING WITH SIGNET IMPRESSIONS SHOWING DESIGN DERIVED FROM XIIITH DYNASTY SCARABS ( $\frac{v}{a}$ ).

belonging to an earlier building, and, indeed, somewhat out of line with the Later Palace work immediately to the West of it. The floors of these chambers lay about 5 metres below the present surface and from about 3 metres down quantities of painted pottery of the Middle Minōan class were found. It was here that at a depth of 4 metres lay the dove vase found in 1900. With the pottery were also found a variety of clay sealings belonging

to the period of the Earlier Palace, some with decorative designs derived from the XIIth Dynasty scarab style (Fig. 63). Other sealings are of great importance as exhibiting groups of pictographic characters of early type. It thus becomes evident that this form of script was in vogue in the Earlier Palace. Fig. 64 shows an example of one of these impressions

with the bent leg, double axe and fish signs. Another sealing (Fig. 65) shows a double axe with a scale pattern.

These early chambers and cells were composed of rubble masonry, and square limestone doorposts took the place of the low bases supporting



FIG. 64.—CLAY SEALING WITH PICTOGRAPHIC SIGNS ( $\frac{3}{4}$ ).



FIG. 65.—DOUBLE AXE WITH SCALE PATTERN ( $\frac{3}{4}$ ).

wood and plaster door jambs, seen in the Later Palace. Some of the compartments here are mere walled pits about 1·55 metres N.S. by 0·80 E.W., and are perhaps largely foundation structures.

#### § 25.—CUPS WITH INK-WRITTEN INSCRIPTIONS.

The upper part of the early constructions on the South-East, mentioned in the preceding Section, had evidently been made use of as basements for a wing of the Later Palace. Here were found various vases belonging to its early period, including two cups of quite exceptional interest. These cups, the relatively early date of which is attested by their forms still showing traces of the characteristic contour of the earlier Minoan painted class, were themselves of plain clay. The interior, however, was in both cases occupied by inscriptions in linear characters written in what appears to be a kind of ink of deep brown or blackish colour. The writing shows a cursive tendency, and there are some variations from the ordinary linear forms. I have therefore set beside my copy of one of the two inscriptions given in Fig. 66 *a* a rendering of it in the characters of the normal linear script (Fig. 66 *b*). The existence of stops between some of the words or sentences will be noted.



FIG. 66 a.—INK-WRITTEN LINEAR INSCRIPTION IN CUP.

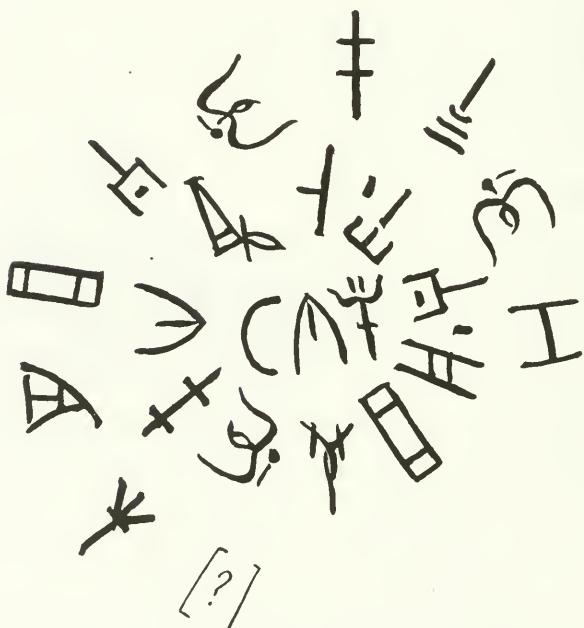


FIG. 66 b.—TRANSCRIPTION OF a IN NORMAL CHARACTERS OF THE LINEAR SCRIPT.

So far as appearance goes, the base of the ink used may have been sepia. It has been extraordinarily durable and so indelible that it was possible carefully to wash the inner surface of the cups. The lines of the letters show occasionally a tendency to divide, which may point to the use of a reed pen. As a whole the inscriptions present an extraordinary parallelism in their general character to those on Egyptian *ostraka*.

The great value of these ink-written inscriptions is that they give us the first direct evidence of the existence of literary materials in the Palace of Knossos other than the inscribed clay tablets. These specimens of penmanship are the work of practised scribes, who, writing in a different manner, had developed independent methods and forms, somewhat variant from that of the other school of scribes who wrote with a pointed instrument. The heaps of broken seals found in the Room of the Archives and elsewhere already suggested the inevitable inference that they had originally belonged to written documents the materials of which had perished. What these materials were it is impossible to say with certainty. Parchment may have been used, and the old Cretan tradition that palm leaves had once been used for writing should not be left out of account. In any case the proof that writing in ink was practised in the Minōan Palace opens out possibilities of the former existence of literary materials of a fuller kind than could be supplied by means of the clay tablets.

#### § 26.—SOUTH-EASTERN ANGLE OF THE PALACE.

The exploration of the South-Eastern Palace region is still incomplete, and it must be sufficient here to give the briefest summary of the general results obtained.

South of the South-East Court is a group of chambers, one of which containing part of a *pithos*, is certainly a Magazine, while the South-Eastern angle is occupied by a square tower-like structure with abnormally thick walls. This group of chambers seems to form a connected whole, and is entered on the East side through an oblong room, larger than the rest, which forms a kind of entrance hall. Some rather elegant vessels of the late Minōan class were found here.

At the extreme South-Eastern angle a double staircase, one flight of which is preserved, runs down towards what may have been a postern gate on this side. On either side of the lower entrance passage of this staircase are two rooms built of good limestone masonry, that to the South

of oblong shape, being lined with gypsum plaques like the North Bath. The other is a square room with a square stone pillar standing on a low base in its centre. In the entrance passage between the two rooms were brought to light important bits of wall painting consisting of olive or myrtle sprays and the group of lilies already referred to. A small fragment showing grass in seed is also of singularly naturalistic execution. In the same area also occurred bits of painted pottery in the fine Later Palace style, and an ivory knot similar to the porcelain example from the Fourth Shaft Grave at Mycenae. Here, too, was found a small columnar shaft of porphyry-like material, round which runs a spiral band relieved with a continuous decorative design of a kind also found on the Palace vases.

It is to be noted that the group of structures about the South-Eastern staircase is set at a somewhat different angle from that of the rest of the Eastern Palace wing. This abnormal orientation is almost certainly accounted for, however, from the fact that this angle of the building lies on the edge of a steep bluff, and that it was therefore found convenient to follow the contour of the ground. It must be regarded as an integral part of the Palace.

#### § 27.—EASTERN WALL-LINES AND BASTION WITH DESCENDING RUNNEL.

On the lower terrace a little East of the East Portico of the Hall of the Double Axes came to light the foundations of two parallel walls perhaps belonging to a Corridor. It was here that the 'Labyrinth fresco' was discovered, and a little North of the same spot lay large fragments of a plaster dado showing a pale yellow ground realistically decorated with veins in various shades of reddish brown in imitation of marble.<sup>1</sup>

Parallel with the remains of the Corridor, and about a metre and a half East of it, a double line of wall, the foundation courses of which alone were preserved, runs from North to South. These were evidently terrace walls, and seem to represent the limits of the Palace in this direction.

It is true that about 12 metres below the point where the traces of this double wall temporarily cease in a Northerly direction, parts of a walled angle are visible which seem to represent some projecting spur of the

<sup>1</sup> See Fyfe, *R.I.B.A. Journ.*, 1902, p. 112, Fig. 13.

Palace, or a covered line of approach to its no longer visible Eastern Entrance. But the true continuation of this double wall-line is to be found in two terrace walls with a similar narrow space between them that form the Southern and Western sides of a curious Eastern Bastion, to be described below, and prolong their course thence towards a point probably representing the north-east angle of the Palace.

The Southern part of this Bastion seems to have contained a double staircase, the steps of the upper flight of which have disappeared. This upper flight led to the terrace above and thence in the direction of the Court of the Oil Spout. On the lower part of this staircase there was apparently a double landing with two or three intermediate steps connecting the two flights, as in the case of the Quadruple Staircase. Of these landings the lower only has been preserved, and from it a small flight of five steps leads down to a stone terrace having itself two slight steps at either end. From this terrace again, about 5 metres on, another flight, of which only two steps and part of a third are preserved, descends in an Easterly direction (See Plan, Fig. 67 and Fig. 69).

But the most interesting feature of the whole is the water channel that accompanies the stairs. The steps themselves are a metre wide, but between them and the outer balustrade of the staircase is a space of 25 centimetres occupied by a stone runnel, the construction and arrangement of which shows extraordinary skill in dealing with running water. Its stone channel instead of accompanying the descending flight of stairs in one continuous slope, as might have been supposed, follows the successive gradations in a series of curves. (See Section BB, Fig. 68.)

The effect of these descending curves is to put a repeated check on the rush of water. The curves themselves almost exactly agree with the natural parabola which water on falling would execute. There is thus a series of leaps instead of one, and the water flowing over a succession of curves is subject to friction which reduces its velocity. The current thus reaches the critical point, the sharp turn namely at the bottom of the stairs, with an impetus much inferior to that which it would otherwise have accumulated from the unbroken descent. The force of the water being in this way diminished, it was less liable to overflow the pavement at the bottom of the flight of stairs. The hydraulic science displayed by this device is such as to astonish the most competent judges.

But this is not all. At the bottom of the flight of stairs where the

*KNOSSOS.*  
*EAST BASTION*

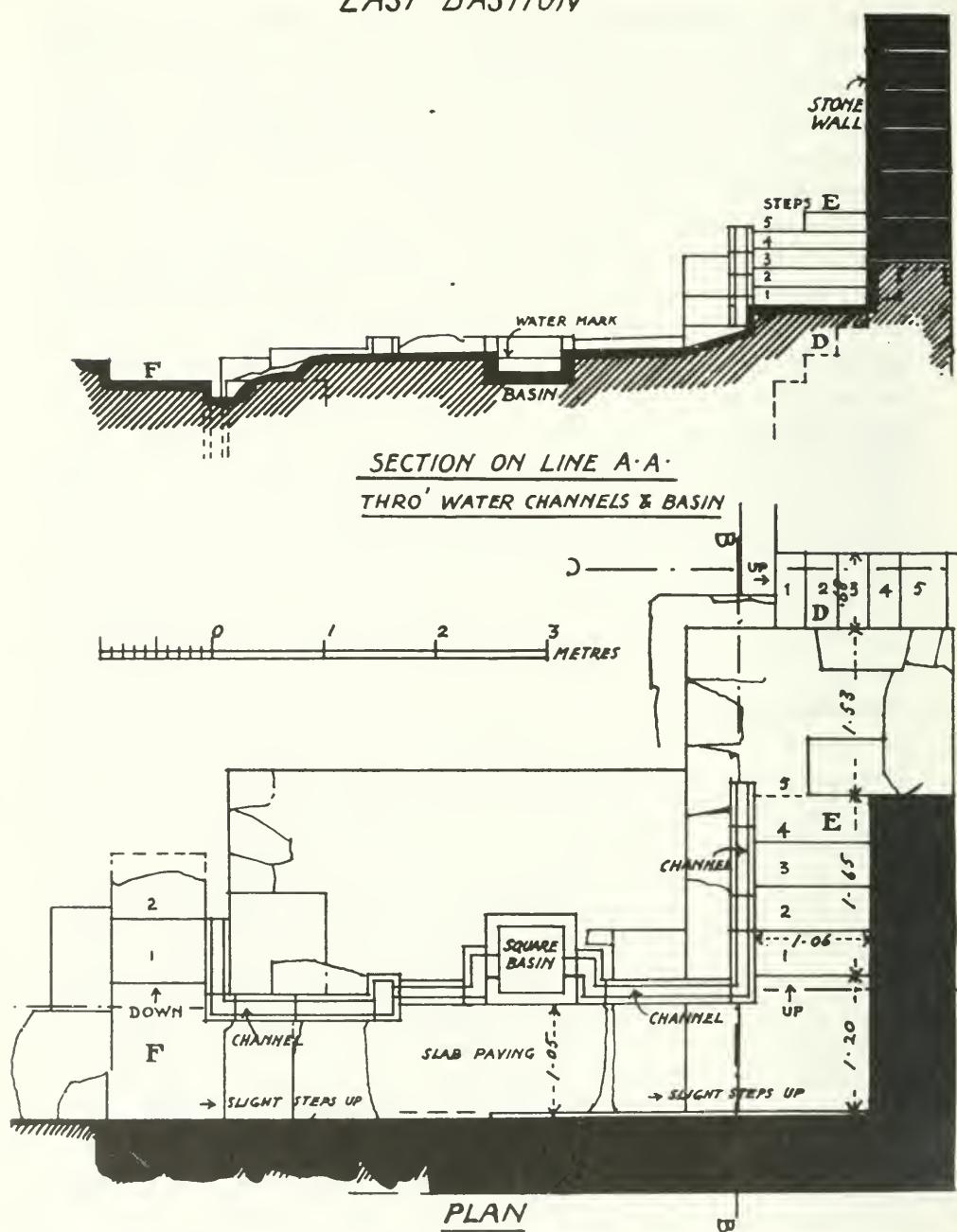


FIG. 67.—PLAN OF EAST BASTION WITH SECTION ON LINE A-A.

NOSSOS.  
EAST BASTION

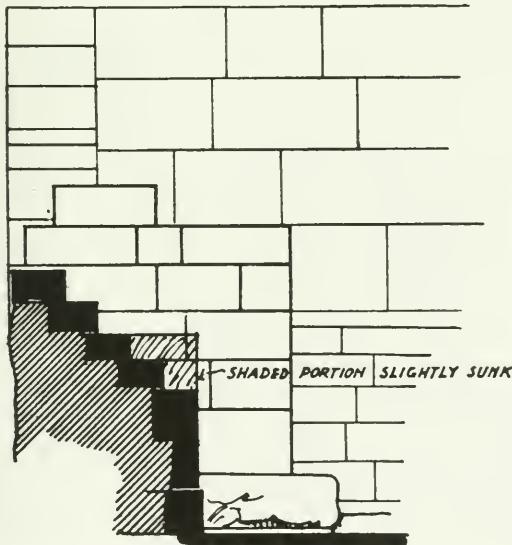
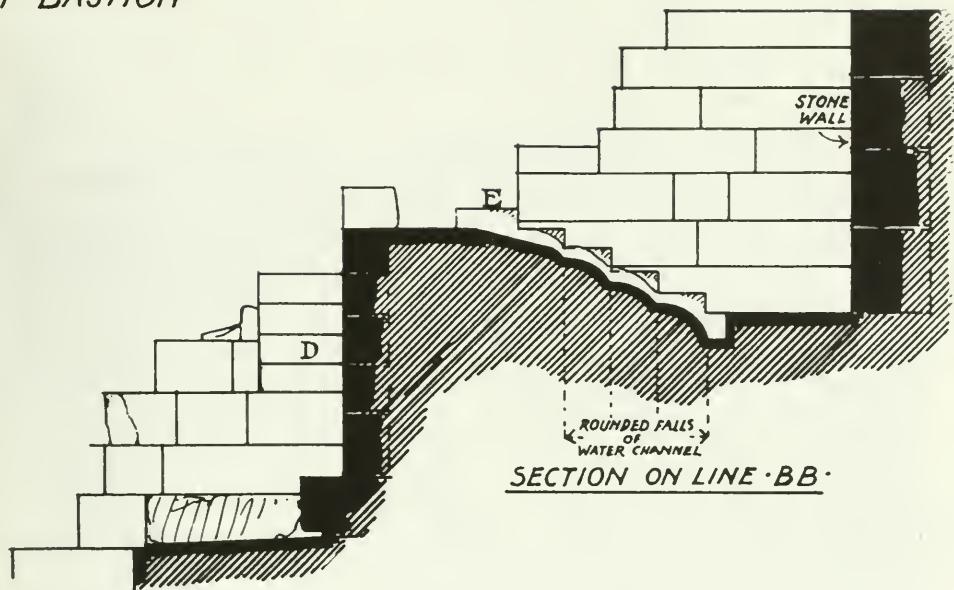


FIG. 68.—SECTIONS OF EAST BASTION ON LINES B—B AND C—C.

runnel takes a sudden turn to the right the channel is deepened so as better to accommodate the inrush of the current, and the water is further drawn away from the possible point of overflow by a sudden downward slope of the channel.

It appears that the water was ultimately wanted for some tank below which it was desirable to keep clear. Accordingly the level part of the course along the small terrace was taken advantage of to form a small catch-pit, for the deposit of sediment, in the shape of a shallow square basin, which could easily be cleaned out when necessary. In order to secure a certain local retardation of the current, moreover, favourable to the precipitation of sediment, the runnel instead of proceeding directly to the basin makes a double bend, repeated in its continued course beyond. In the angles of these bends as well as in the small catch-pit itself the sediment according to well-known laws would have a tendency to be deposited. The extraordinary point is that these laws should have been known to the Minōan architect.

The runnel now proceeds by two more elongated curves, answering to the low steps at the further end of the terrace, to the point where it turns Eastward by a continued curving course down the further flight of steps, of which only the uppermost are preserved.

In the North face of the wall, immediately beyond the Bastion down which the runnel descends, are visible five steps of a smaller staircase (D in the Plan and Section and Fig. 69), which display the peculiarity that they suddenly break off, leaving a drop of 1·20 metre to the paved floor level below. The possibility suggests itself that the level of the lowest step may represent the water level in some kind of tank, supplied, in part at least, by means of the runnel that accompanies the other stairs. Two courses of a wall are in fact visible about a metre East of the smaller flight of steps, which seems to have represented the containing wall of the basin on that side. There are also traces of its North Wall.

The platform of masonry with the larger stairs and runnel is not jointed into the main terrace wall behind, and, though doubtless contemporary with it, forms, so far as its construction goes, a kind of annexe to it. It is built of smaller blocks than the others, several of which show incised signs belonging probably to the latest Palace Period.

The terrace wall itself is backed, as already noted, at an interval of only a few centimetres by another rougher wall, and this double line,

Landing of  
Staircase E

Continuation South of  
Eastern Wall Lines.

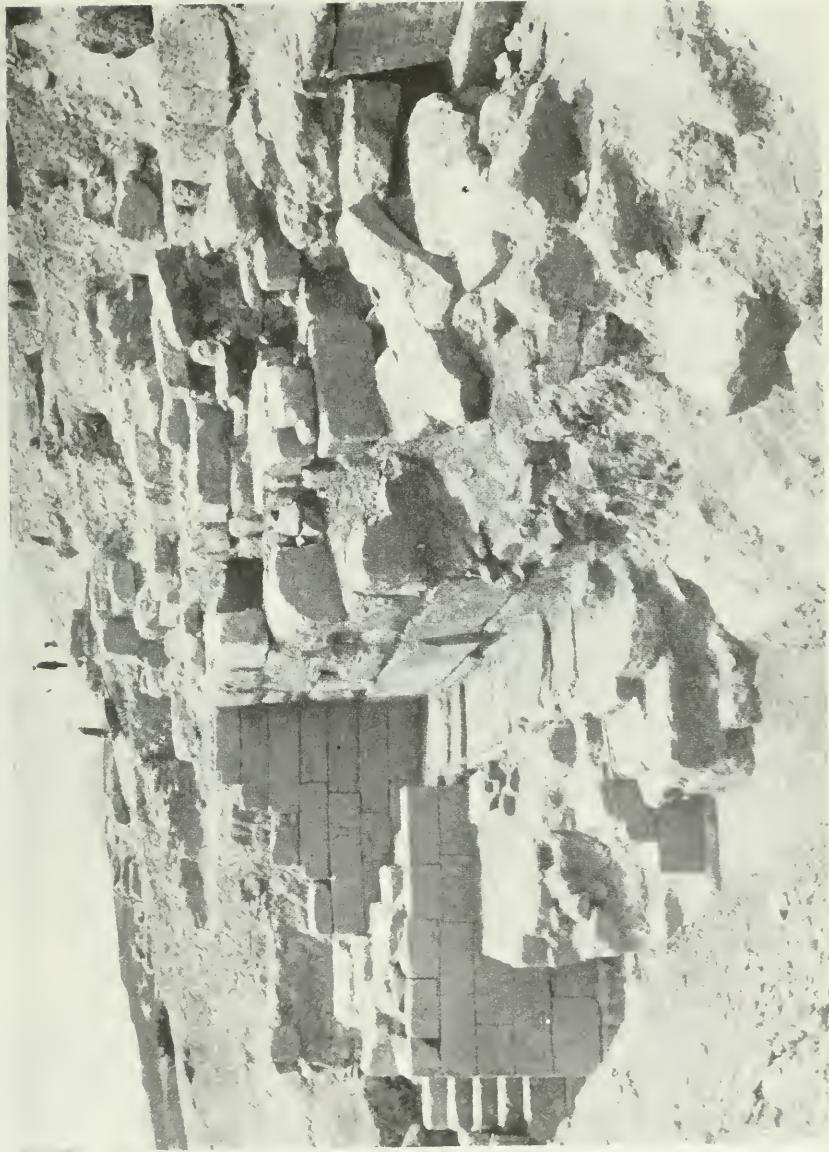


FIG. 64. VIEW OF EAST BASTION AND REMAINS OF ADDBLE LINES OF WALLING BEHIND IT.

though partly in a ruinous state, can be traced for about another twenty-five metres beyond the East Bastion. The outer of these two walls alone has a face, on the Eastern side, the inner wall being constructed entirely of roughly finished blocks. This dual arrangement which characterises what may be regarded as the Eastern boundary line of the Palace, also reappears in the case of the Western Wall of the deep-lying central region of the East side of the Palace, that, namely, which borders the Quadruple Staircase, the Court of the Distaffs and adjoining rooms. The object, especially visible in the latter case, is to protect the second of the two walls from damp by interposing an air-space between it and the true terrace wall. At the same time certain points of contact between the inner and outer walls of the system gave the whole a measure of unity as a supporting wall. The Minoan architect showed in other ways a special genius in protecting the main halls of the low-lying part of the building against damp. It will be seen by referring to the Plan on p. 56, that the whole 'Domestic Quarter' of the Palace and the adjoining halls are not only protected by the double wall and air-space to the West, but are flanked to North and South, where there was also an earth cutting, by corridors, light areas, and blocks of masonry containing drain or ventilating shafts.

Almost immediately behind the second line of the East Wall is another wall, traceable, in part only by its foundations, for a distance of about 30 metres beyond the East Bastion. This wall is constructed of large limestone blocks and has a good facing on its Eastern side, showing that it was originally intended to be visible. It follows that the rough wall in front of it and the outer wall-line in connexion with it are of later construction. The third wall-line would then represent the original terrace wall, which was afterwards supplemented, owing probably to its having fallen into a ruinous state, by the two outer lines with foundations, at a somewhat lower level. There are also remains of a fourth inner line of wall at a mean distance of about a metre within the earlier terrace line represented by the third wall (see Fig. 69).

This quadruple line of wall may be taken to represent the Palace boundary on this side and is evidently the continuation of the similar system visible West of the East Bastion. Further Eastwards, owing to the denudation of the slope, the traces of these walls dwindle to vanishing point, but there are strong indications that these remains very nearly reach the extreme North-West corner of the building. A distinct Northern

boundary line is in fact visible, which would have met the Eastern Wall at a point about 35 metres from the East Bastion. The first section of this line on the slope above is supplied by the remains of an existing wall by the North-East Postern. East of this—following the Northern boundary of an earlier group of buildings to be referred to in the next Section—is a cutting as if for a roadway, which was found choked with tumbled blocks, apparently derived from a line of outer walling that had originally surmounted it.

It is true that immediately North of this cutting are remains of a block of buildings consisting partly of magazines with *pithoi* of the advanced Mycenaean class, together with other constructions belonging largely to the period of the Earlier Palace. These structures, however, seem to be at most of the nature of dependencies to the main building.

#### § 28.—STORE-ROOMS OF EARLIER PALACE, WITH PAINTED VASES OF EGG-SHELL FABRIC.

In the angle included between the Magazines of the Knobbed *Pithoi*, the Eastern Wall-lines and the cutting to the North mentioned in the last Section, the remains of the Later Palace have almost entirely disappeared. This is no doubt largely due to the natural denudation of the slope of the hill, but the remains of a kiln found here belonging to the Roman period may indicate that some of the good material on this side was artificially destroyed.

To compensate, however, for the disappearance of the later Minōan structures within this area, a whole series of chambers belonging to the earlier building were here brought to light, in part beneath the level of the Roman kiln. The walls were of the same simple rubble construction as those of the primitive chambers near the South-East corner of the Palace. The rooms were small, with narrow door openings, and there appeared to have been a gallery on their Western border. Two points in regard to these structures were specially noteworthy. Although obviously of an earlier date and built according to a more primitive method than the Later Palace, the orientation of their main lines, both from North to South and from East to West agreed with the later plan. It was also evident that some of the chambers had, at a time when their original floor levels had slightly risen, been used as basement stores by the occupants of the Later Palace.

In one case piles of vessels similar to those of the North-East Magazines had been placed on a floor level only a few centimetres above layers of finer vases belonging to the earlier Minoan Period.

As a rule, however, the difference of level was very decided, and the following was the usual stratification brought to light.

1. At or near the surface level a disturbed clayey deposit with pottery answering to classes found in the Later Palace, including the Period of Re-occupation. This goes down 1·25 metres.
2. A stratum 12 centimetres deep full of wood ashes packed with Late Minoan (Kamáres) sherds similar to those below the Room of the Spiral Fresco (see p. 26, 27).
3. A pale clayey stratum 20 deep with a few sherds of the same general character as the last.
4. A deposit 45 centimetres thick of wood ashes with the remains of Minoan painted vases of the finest fabric. This deposit rests on a stamped clay floor-level about 1·88 from the present surface.

It was evident that the bulk of these chambers had been store-rooms for pottery of a very remarkable quality. Although from the extreme delicacy of the fabric of a large proportion of the vessels the mere weight of the superincumbent deposit seems to have been enough to crush them, it has been possible to put together a series of vessels in a fairly complete form with results that throw an entirely new light on the high perfection of ceramic art already reached in what may be best described as the Middle Minoan Period.

The vases from these chambers consisted for the most part of bowls and cups, with or without handles, of great variety and elegance of form. Their very fine fabric, often as thin as egg-shell china, as well as some of their contours, suggest originals in metal work, and some of them are adorned with embossed decoration evidently copied from the *repoussé* designs of cups in precious metals. The slight metallic lustre occasionally visible on the black ground of these vases helps to enhance this comparison.

The colours are generally vermillion red, orange, and white, on a black ground. Sometimes, however, the ground is a bright brick-red, as in the case of some beautiful bowls adorned with white asterisks. More rarely the ground is pale buff with dark brown decoration—a style which anticipates the prevailing fashion of the Later Palace Period. A cup with white

leaf ornaments on a dark ground round its walls and the same decoration in dark brown on a white ground on its base illustrates the transition between the two usages.

It is impossible here more than to refer to these exquisite ceramic types, which will be more fully illustrated in Dr. Duncan Mackenzie's account of the Knossian pottery in the forthcoming number of *The Journal of Hellenic Studies*. A good example of a cup with a fine metallic outline is given in Fig. 70. It shows a simple geometrical decoration—white with small red disks on the black ground—resembling a succession of narrow plates with studs or rivets; the handle, part of which only is preserved, is about two centimetres broad, but so slender that it must have been used with great precaution. The cup reproduced in Fig. 71<sup>1</sup> is one of the most beautiful ceramic productions of the Minōan or any other age. It is light in make and spontaneous as a bubble, and the design it bears, the calix of a water-lily as it floats on the surface of a pool, is in keeping with the lightsomeness of form. The idea of this decoration may have been suggested by a lotus vase of Egypt, but the floral motive is here more delicately treated.<sup>2</sup> The outer leaves of the calix are black with a central vein of red, the inner petals white, and the whole upper margin of the corolla is outlined against a red background.

It is to be observed that the divergent spiral and several other designs on the cups and bowls from these early store-rooms, like the contemporary Cretan seals, show distinct traces of the influence of Egyptian motives of the Twelfth and Thirteenth Dynasty Period. The character of the decoration is geometrical, and plant forms where they occur are treated in a more or less geometrical manner. There is nothing here of the untrained naturalistic style which characterises the art of the Later Palace.

#### § 29.—FRAGMENTS OF BOWLS OF DIORITE AND LIPARITE OF EARLY DYNASTIC EGYPTIAN FABRIC.

The high level of civilisation attained at Knossos by the date of the Middle Kingdom of Egypt is well illustrated by the beautiful ceramic

<sup>1</sup> Both of these illustrations are from black and white drawings by Mr. Theodore Fyfe.

<sup>2</sup> The same design in a coarser form is applied to a characteristic series of Cretan stone bowls of the type figured in *Cretan Pictographs, &c.* (Quaritch, 1895) *Deposit of H. Onuphrios*, p. 123, Fig. 123. A variety with a double calix was found in the North doorway of the Hall of the Double Axes (see above, p. 39).

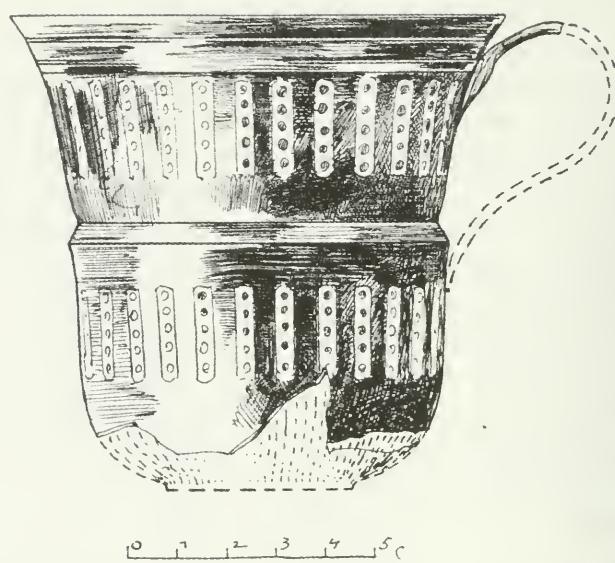


FIG. 70.—PAINTED CUP OF METALLIC OUTLINE: MIDDLE MINOAN.

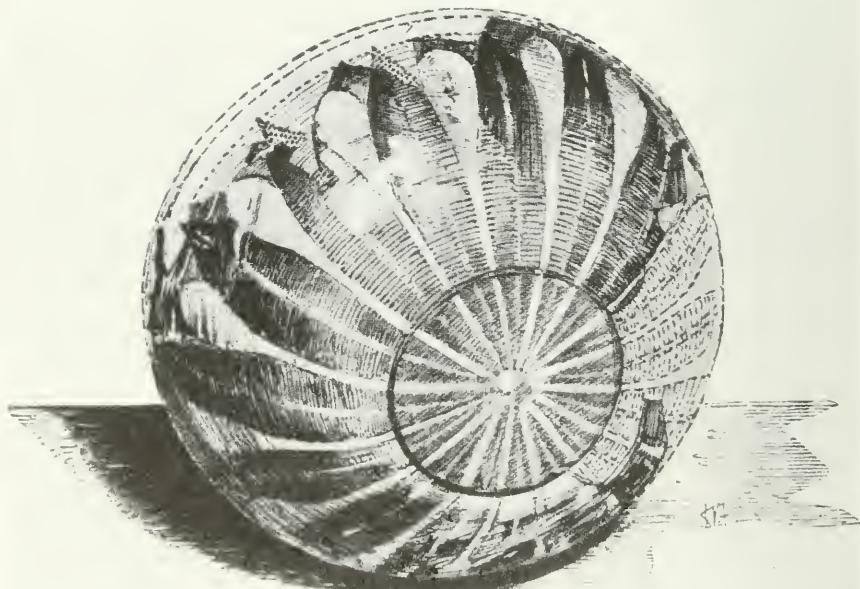


FIG. 71.—CUP WITH WATER-LILY DESIGN: MIDDLE MINOAN.

products described in the preceding Section. But the exquisite technique of these painted vases itself implies a very extensive period of earlier development. On the Palace site, moreover, and notably in the deep-lying early chambers on the South-East (see above, p. 106), were found remains of vases typologically at least anterior to the developed 'Middle Minōan' class. The decoration on these, consisting of chevrons and dots in reddish-yellow and white on a black ground, simply represents the taking over of the incised and punctured decoration of the advanced Neolithic style, where the white and orange inlays in the burnished black 'bucchero' already anticipate the system of colouring.

Already in 1895 certain forms of Cretan stone vases had led me to seek comparisons in Old Kingdom forms, notably those of the Fourth Dynasty.<sup>1</sup> The most characteristic of the Cretan bead-seals—the prism-shaped—find their prototype moreover in a black steatite example found

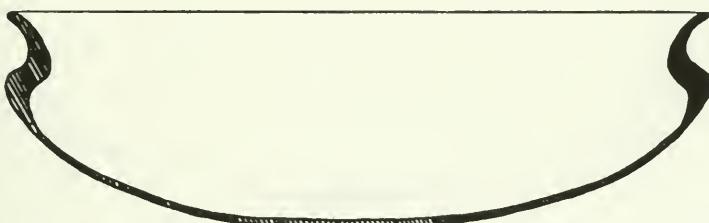


FIG. 72.—FRAGMENT, AND RESTORED SECTION, OF DIORITE BOWL, FROM EARLY PALACE.

at Karnak, the subjects on which are allied to those of a peculiar class of cylinders of the same material belonging to the earliest Dynastic period.<sup>2</sup> Several of the traditional figures of Cretan intaglios, moreover, such as the Minotaur itself, go back to the same cycle. The influence of another class of seal, of button shape, frequent about the VIIth and VIIth dynasties, and on which the maeander design, the prototype of the 'Labyrinth in Art,' is specially frequent, has also to be taken into account.

The excavations of 1902 have now supplied in a fragmentary but conclusive form the evidence of actual imports from the Nile Valley belonging to the early Dynastic Period.

Among some debris from the South wall of the Store Room containing

<sup>1</sup> *Sepulchral Deposit of Hagios Onuphrios in Cretan Pictographs, &c.* (Quaritch, 1895), pp. 117, 118).

<sup>2</sup> *Further Discoveries of Cretan, &c. Script* (*J.H.S.*, xvii. 1898, p. 362, seqq.).

the 'false-spouted' jars of the earliest period of the later Palace (see above, p. 88) occurred a beautiful fragment of a shallow finely profiled bowl of translucent diorite (see Fig. 72). The circumstances of the find sufficiently indicate that the fragment belonged to an earlier date than the Later Palace, but the evidence goes far beyond this. Both form and material show that the vase to which the fragment belonged was of the finest Egyptian fabric, and in the opinion of the most competent Egyptologists<sup>1</sup> the probable date of its manufacture goes back to the period of the IVth Dynasty (c. 4000–3700 B.C.), while it cannot be later than the VIth (c. 3500–3330 B.C.). As a matter of fact the fragment so closely resembles the material and contour of a diorite bowl in the Ashmolean Museum (see Fig. 73) from the tomb of the first Fourth Dynasty King Sneferu (c. 3998–3960 B.C.) that it might almost have been broken from it. The diorite is of the most exquisite kind, such as is found in the royal tombs.

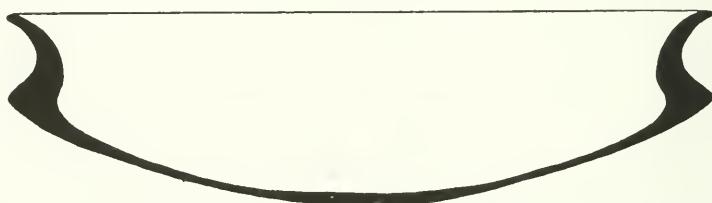


FIG. 73.—SECTION OF EGYPTIAN DIORITE BOWL FROM TOMB OF KING SNEFERU, OF THE FOURTH DYNASTY.

Nor does this evidence stand alone. On the East slope, near the early Store Rooms containing the 'Middle Minōan' pottery, but in disturbed earth, was found another fragment of a bowl of the same type, though of somewhat more carinated profile (see Fig. 74), cut out of a peculiar speckled variety of volcanic glass. The material, which is semi-transparent, has been examined by the eminent mineralogist, Professor H. A. Miers, and proves to be the very distinct variety known as litarite and derived from the Aeolian Islands.<sup>2</sup> This form of obsidian is unknown in the Aegean, and it appears to be unlikely that it could at any period have

<sup>1</sup> Professor Petrie considers it to be of the Fourth Dynasty and in no circumstances later than the Sixth. Professor Waldemar Schmidt, of Copenhagen, considers that these bowls were made during the Fourth Dynasty, and that though they may have been in use during the Fifth Dynasty it is impossible to bring them down to a later date.

<sup>2</sup> This conclusion is confirmed on the geological side by Professor W. J. Sollas.

been found there.<sup>1</sup> A few other fragments of the same material have occurred in the Palace strata at Knossos, including part of a lentoid intaglio dating from its latest period. From the earliest Neolithic times onwards, however, the obsidian in general use was the fine black quality such as is found in such profusion in Melos. It is, moreover, a remarkable fact that though the form and finish of the bowl to which this fragment belonged, proclaim it to have been of early Dynastic Egyptian fabric, the obsidian vases, hitherto found in Egypt itself, are of a material answering to the ordinary Aegean class. It is possible that the Italian variety offered greater facilities for cutting out vessels of comparatively large dimensions. The obsidian vases found in tombs belonging to the first Dynasties at Abydos are of more compact type, and to cut out a delicate bowl from the Aegean material might well have baffled human

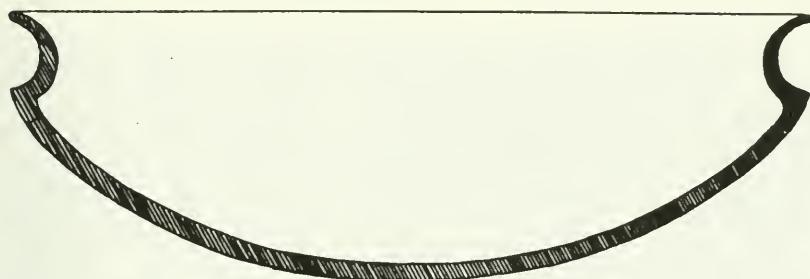


FIG. 74.—FRAGMENT AND RESTORED SECTION OF LIPARITE BOWL.

skill. As it is the bowl from which the fragment has been derived with its finely profiled outline and exquisitely slender fabric must have been a prodigious *tour de force*.

In Professor Petrie's opinion the sharply characterised form shows that this liparite bowl cannot be later than the IVth Dynasty. Coupled with the finding of the fragment of the diorite bowl, it is not too much to say that the discovery throws an entirely new light on the external relations of Minōan Crete in the early centuries of the Fourth Millennium B.C. It would appear that maritime intercourse was already opened up with Italy as well as the Nile Valley, and it is difficult to avoid the conclusion that Cretan mercantile intercourse already supplied Egypt, not only with the Aegean type of obsidian, but with the rarer quality derived perhaps

<sup>1</sup> This is Professor Miers' opinion.

by means of the later Ionian coasting route) from the Aeolian Islands. The Minōan ruler seems to have received in exchange some finished products in the shape of vessels both of the finest Egyptian material and of the liparite that his own maritime enterprise had secured for Pharaoh. The alternative hypothesis that either class of bowl was made in Knossos by Egyptian lapidaries seems less consistent with general probabilities.

ARTHUR J. EVANS.

## THE PRE-HELLENIC INSCRIPTIONS OF PRAESOS.<sup>1</sup>

I.—*The Text of the nomos-fragment.*



<sup>1</sup> My debts to the kind help of many friends are acknowledged at the proper places ; but there are three whom I desire to thank for more than can be shown by particular references. The scope of the article on the linguistic side has been twice enlarged in consequence of fruitful suggestions from Mr. Bosanquet ; I could not have ventured to admit even brief allusions to Semitic forms

ΙΝΑΔΕΣΙΕΜΕΤΕΡΙΜΙΤΣΦΑ

1

ΔΟΦΙΑΡΑΛΑΟΡΑΙΣΟΙΝΑΙ

ΡΕΣΤΝΜΤΟΡΣΛΔΟΦΣΑΝΟ

ΣΑΤΟΙΣΣΤΕΦ ΞΣΙΑΜΥΝ

ΑΝΙΜΕΣΤΕΡΑΛΥΝΓΥΤΑΤ

5

ΣΑΝΟΜΟΣΕΙΟΣΦΡΑΙΣΩΝΑ

ΤΣΑΑΔΟΦΤΕΝ/ 0

ΜΑΓΡΑΙΝΑΙΡΕΡΓ

I or ΗΡΕΙΡΕΡΕΙΤ

ΝΤΙΡΑΝC

10

ΙΑΣΚΕΣΙ

ΙΩΤ

This stone was found by Mr. R. C. Bosanquet, in June 1901, on the Altar Hill ("Third Acropolis") at Praesos, in the ruins of the wall enclosing the *τέμενος*, within the northern entrance. The site and surroundings are fully described by him in *J.H.S.* xxi. (1901), p. 340.

The photograph and transcription are Mr. Bosanquet's. The latter was made by him directly from the original, after considering the points raised by a less complete transcription which I had attempted from the photograph and from a careful paper impression which he had kindly sent me. It will be seen from the notes which follow that nearly all my questions have been wholly or completely answered, but it seems well to give this brief indication of the varying degrees of certainty of different parts of the text. Happily the bulk of it is now beyond doubt Mr. Bosanquet's comments are indicated by his initials.

Dotted lines indicate strokes which are not so clear as the rest.

At the end of l. 4 the horizontal line above the letters seems accidental from its covering more letters than one [certainly accidental R.C.B.]

§ 1. There follow two transliterations, in the first of which I have put down only those letters which seem to me now absolutely certain (from the photograph, the impression, and Mr. Bosanquet's notes); the letters underlined are slightly injured but still clear. In the second I have indicated all the readings which seem to me to be reasonably probable from the indications of the impression, corrected by Mr. Bosanquet's reading of the stone wherever he felt it was certain. Where his repeated examination left him still in some doubt, it seems wisest to leave the text suggested by without the valuable and repeated help of my colleague, the Rev. D. Tyssil Evans; and the suggestive and vigilant criticism of Professor R. M. Burrows upon two stages of the proof of the paper, especially, but by no means only, upon its historical side, has removed some definite errors, and encouraged me to seek a broader basis than had contented me at first for more than one of its conclusions. I should add that Dr. R. Von Planta of Zürich was kind enough to read the proof and supply one or two references; and I have to thank also Mr. H. S. Cowman, of the Cambridge Archaeological Museum, for occasional assistance of the latter kind.

the impression, as giving at least possible alternatives. In the second transcription only those letters are underlined which appear to me open to some degree of doubt.

- (i) onadesiemetepimitsɸa  
     do . . . alaɸraiso . na .  
     . est . . o . . . doɸsano  
     satois . te . sia . un  
     5 animestepalungutat  
     sanomoselosɸraison .  
     tsaadoɸten . . . o  
     mapraina . e .  
     . . eirereiet  
 10 ntiran .  
     askes .  
     . . t .

The dots indicate one letter's space ; but it will be seen that some, like **M**, take more space than the average.

- (ii) onadesiemetepimitsɸa  
     ?ia?ɸ  
     doɸmralaɸraiso*inai*  
     ?  
     rest . . . torsardoɸsano  
     satois steɸesiamun  
     5 animestepalungutat  
     sanomoselosɸraisona  
     tsaadoɸten . . . o  
     maprainairere  
     . . eirereiet  
 10 ntiran .  
     askes .  
     . . ot .

§ 2. The photograph shows (by the upper margin of the stone) that our fragment begins with the first line of the insc. ; but it is to be observed that the different distances from the right hand margin at which the first six lines end show :

(i) that the engraver did not divide his words between two lines, and hence,

(2) that the last letters in these lines are also the endings of words, and hence probably

(3) that at least some letters are lost on the left of every line ; *-tsa* and *-ntiran* do not appear to be the beginnings of words.

[It is very improbable that the strip broken off on the left is a narrow one. The stone seems to have no natural cleavage in this direction.—R.C.B.]

#### NOTES ON THE ALPHABET.

§ 3. The letters are nearly all rectangular, save that (a) the lower bar of Ε often inclines a little downwards (as e.g. in the inscc. of Central Italy about 250 B.C., see for instance *It. Dial.* p. 108), and (b) that the bar of Α more often inclines upwards towards the right; and (c) Ι has the form L.

§ 4. In the signs that are perfectly visible there are none, save this L, that are strange to the Ionic alphabet of the best period. From the data given by Roberts, *Gr. Epig.* pp. 39–52 (esp. 52 *ad fin.*) it would seem that this insc. cannot be earlier than 400 B.C. and may well be considerably later; it is therefore probably contemporary with the latest of the pottery described by Mr. Bosanquet, *J.H.S. l.c.* as ‘ranging from the sixth to the fourth century.’

§ 5. The insc. is so worn that it is difficult to be sure of any interpuncts. In the following places, however, to judge from the impression, to me they seem

(a) probable :

- l. 5 ΕΣΤ·
- l. 6 ΣΑ·ΝΟΜΟΣ·ΕΛΟΣ·
- l. 7 ΤΣΑ·

(b) faint but possible :

- |          |            |            |
|----------|------------|------------|
| l. 1 ΗΝ· | l. 2 Α·ΛΑ· | l. 3 ΡΕΣΤ· |
| l. 4 ΣΑ· | l. 5 ΧΝΙΜ· | l. 6 Ν·ΟΜ· |
|          | l. 8 Μ·Α   |            |

[They are all accidental marks, I am certain.—R.C.B.]

§ 6. The letters which are quite certain are

A A, Γ, ▷Δ, ΕΕϜ, Ι, Κ, Λ, Μ, Ν, Ο, ΠΠ, ΣΣ, ΤΤ, Υ, ϕ.  
 a g d e i k l m n o p s t u ϕ<sup>1</sup>

§ 7. The letter *r* occurs several times but I could nowhere be certain from the impression whether the form was *P* or *R*; diagonal strokes seem to have tended to break the stone more than either vertical or horizontal, so that, for instance, I found some of the examples of *ξ* very hard to read at first, though after repeated examination of the back of the impression I have now no doubt of them (*e.g.* the *s* in *sφa* in l. 1 and that in *φraiso* in l. 2). It was therefore hard to say whether the break which appears below the bow of *P* in all the places where the letter is certain did or did not conceal a small tail. [I take it as always *P*.—R.C.B.].

The loop of this sign in l. 9 (2nd letter) is so much smaller than is usual in *P* as to suggest that it rather be read as *b*; the latter appears in Crete and Thera also in the form *P* (Roberts, *Gr. Epig.* p. 39, 9a, p. 26, 4m=Roehl, *I.G.A.* 466. In Thera it seems also to have the form *↗* (*I.G.Ins.* iii, no. 769, cf. *Hermes*, xxii, p. 136). A similar doubt might be felt about the third and fifth following signs. [On the stone they all appear to be simply *P*.—R.C.B.]

§ 8. The seventh sign in l. 7 might be a *Q* since the vertical is not clear within the loop and does not seem to extend above it. But since in l. 2 the mason has omitted the vertical altogether in the *ϕ* of *φraiso-*, (the reading of which is certain from the recurrence of the word in l. 6) it is difficult to be confident that he meant anything but *ϕ* in l. 7. [I think it is a *φ*.—R.C.B.] Still more doubtful to me were the tenth sign in l. 8. [*irere* is certain in l. 8 and l. 9.—R.C.B.] the third and fourth from the end of l. 4, the fifth and sixth of l. 3; and even the seventh of l. 9 might be a *φ* or *Q*. [It is a *P* clearly on the stone. R.C.B.].

§ 9. The first sign of l. 9 might be the second half of *H* slightly rounded, as in Chios (Roberts, p. 386 and no. 150: Roehl, *I.G.A.* 382); [it is *I* preceded by an accidental stroke.—R.C.B.].

§ 10. Apart from the gaps in ll. 2 and 3 which seem almost hopeless without the guidance of some parallel insc.—if such should ever be found—we have now dealt with all the signs which appear in Mr. Bosanquet's

<sup>1</sup> In l. 2 the vertical stroke in this letter seems to have been forgotten by the engraver.

transcription except the ninth from the end of l. 3 which he gives as Λ and the tenth from the beginning (the first in the break) of l. 4 which he gives as ϕ.

As regards the Λ, between *s-* and *-rd-* some vowel seems most probable, if not absolutely necessary (since if it were a consonant we should have to give a syllabic value to Ρ which nothing else in this insc.<sup>1</sup> suggests). It cannot be γ, since we have ρ just below, nor π, since that appears as Π in ll. 1 and 5, nor λ, since that is Λ in ll. 2, 5, 6; nor an ordinary ν since that appears as Υ in ll. 4 and 5. It might, of course, conceivably denote a special kind of *u* (we have Α and Η together in some 'Sabellic' inscc. beside Α and Φ (see *It. Dial.* 36,\* p. 528). But I think it is simply a broken Α, and that is how I read it, with very little doubt, from the impression.

§ 11. As regards the sign in the break of line 4, I hesitated between φ and κ; but what looked like the ends of the two bars of κ, may be merely the beginnings of the top and bottom bars of the following Ε (whose vertical has been broken away). If ϕ were the real form, as Mr. Bosanquet read, some sibilant value would be suggested by the d of the Umbrian alphabet (*It. Dial.* pp. 401, 461) which was used also in Picenum in the form ϕ to denote the local pronunciation of c before i (*ibid.* p. 449) in *Petrusdi, Pasdi* (\**Petrucidius, Pacidius*). But since there is no other evidence of such a sound in these two inscc., nor in the place-names of the district (see below §§ 24–25), and since there is room for a φ, I think it is more prudent to read it so.

It is of course tempting to read the two words as identical with Gr. τοις στεφεσ(σ)ι, but that would plunge us into a thicket of phonetic and morphological assumptions about the language from which we must keep clear at this stage, *i.e.* till we have exhausted the graphical evidence.

§ 12. Of the full Ionic alphabet there remain only Ι, Η, Θ, Χ, Ψ, Ω which we have not as yet encountered at Praesos. Ι and Ξ (the latter appears on the other insc., *v. inf.*) might possibly compete for the 7th sign of l. 4, but with Mr. Bosanquet I believe this to be Ξ. Of Θ and Ω (and probably Η) as the inscc. stand there is no trace. Χ, in the form Μ (frequent in the Venetic, the Etruscan, and the so-called 'Sabellic' inscc.

<sup>1</sup> But in the *barxe*-fragment it seems that -r is syllabic in one word; see § 21 below.

(*It. Dial.* p. 528) where it denotes some kind of sibilant), might be imagined into the place of Μ in l. 2, and into the last gap of l. 4 [hardly : R. C. B.] if any other evidence made us expect it. The last sign of l. 2 might be a broken ψ but the occurrence of the combination of φξ in l. 3 makes a ψ very unlikely.

§ 13. It is on the whole not merely tantalising but significant that there should be no place for any non-Ionic signs save L upon either of the two inscc. except where the stones are broken. This seems to give us a presumption that none such existed in the script of Praesos. Also as to the aspirates it must be noted that the sound of φ in φraisos seems to differ slightly from that of an ordinary Greek φ, or it would not have been represented by π in Greek (Strabo, p. 478 gives the name as Πρᾶσος) [and the name appears with Π on e.g. the 4th cent. Stalai-Praesos treaty<sup>1</sup> : R.C.B.]; nor would it have become a ρ in Modern Greek (*Praesos*) but a φ, as in e.g. Phaestos and other modern Cretan names. Observe too that before σ (l. 3) it certainly was not a full and pure aspirate.<sup>2</sup>

## II. *The Text of the barxe-fragment.*

§ 14. Let us now consider the insc. previously discovered, which for clearness we will call the *barxe*-fragment. (Comparetti, *Mus. Ital. Antich.* II. 673; A. J. Evans *J.H.S.* xiv. p. 355 and xvii. p. 375). The photograph is Mr. Evans'; the transcription is mine<sup>3</sup> from an impression kindly sent me by Mr. Bosanquet. Some questions which suggested themselves to me have now been answered by Mr. R. M. Dawkins, of the British School, who kindly writes to me from Candia the result of his scrutiny of the stone on two occasions; his notes are initialled in what follows.

<sup>1</sup> See below § 22.

<sup>2</sup> Mr. Bosanquet tells me also of an insc. (of the 1st cent. B.C.), from half-way between Candia and Praesos, containing what is explained by Hiller von Gärtringen (*Hermes* 1901, p. 452) as an epithet of Hermes, spelt κυφαριστίφα. We know too little of this form, or indeed of the Gr. κυπταριστός itself, to be greatly helped, but it is certainly to be observed that both in this form and in Πρᾶσος the φ is followed by r, which may have caused in this dialect, as Prof. Ridgeway suggests to me, some kind of aspiration in the pronunciation of the preceding explosive. One or two of the more isolated forms discussed by Gustav Meyer, *Gr. Gram.*<sup>2</sup> § 207, may be due to parallel dialectal changes.

<sup>3</sup> I have to thank the acting editor, Mr. Cecil Smith, for very kind help in securing a correct engraving.



The stone, as I learn from Mr. Dawkins, is smooth upon its left, its under, and its hinder surfaces ; and has regular 'toolings' on these, *i.e.* rows of parallel shallow cuts (I suppose to hold mortar). The top surface also is fairly smooth, with similar marks, except for chippings at either end, and except that the whole surface is more weathered than the others. The upper edge of the face above l. 1, is intact save for a length of 2 in. on the left (of the spectator) and 3 in. on the right. There is not room for another line between l. 1 and the edge, but a margin about half as high as any one of the lines of letters. It is certain therefore that the insc. is complete above, below, and on the left, and that we possess its conclusion.

On the right, however, the existing edge runs obliquely across the lines, the side is weathered and shows no 'toeing'; and the insc. is clearly broken away here.

On the top surface, which is not horizontal but slopes slightly backwards, there is an oblong 'slot' or socket, from  $\frac{1}{2}$  to  $\frac{3}{4}$  in. deep, whose length (1 $\frac{1}{2}$  in.) runs at right angles to the length of the stone. This must have been made to hold a stanchion or clamp. Mr. Dawkins ingeniously conjectures that it would originally have been placed in the centre of the top surface (it is now just above<sup>1</sup> and behind the *k* of (*pkalmit*) and that therefore we may infer how much of the stone is lost, namely, enough to leave eight letters space to the right of this *k*, i.e. some seven letters in this line and three or four in the rest. This may be so. But it is equally possible that the stone we possess may contain at most only half the insc., the adjacent part having been graven on a stone cut to fit the sloping right hand edge of the stone we possess, and clamped to it on the top by a bar with a cross piece 1 $\frac{1}{2}$  in. long at either end to fit into the slots. This is rather suggested by the position of the slot, which would more probably have been cut with its length not at right angles but parallel to the length of the stone, if it had been meant to receive a clamp to hold the stone from falling forward as Mr. Dawkins suggested. I fear, therefore, we have no trustworthy clue to the proportion of the insc. that has vanished. Our block might even be only the lefthand-most of three.

§ 15. The following letters seem to be certain (I write them l. to r., the insc. being *Βουστροφηδὸν*, and the first line running from r. to l.):

Α *a*, Β *b*, Ε *e*, Σ *i*, Κ *k*, Λ *l*, Μ *m*, Ν *n*, Ξ *ξ*, Ο *o*, Ρ *r*, Μ *s*, Τ *t*, Λ *u*

(which last, however, Comparetti read as *γ*).

The difference between these characters and those of the *nomos*-insc. appears to be merely one of time; as will be seen by looking at any of the older monuments of the Ionic alphabet (Roberts, *Greek Epig.* pp. 23–38). It is not far removed from that of the earliest insc. of Gortyn (*ib.* 9*a* and *b*), Lyttos (*ib.* 10*a*), and greatly resembles the earliest from Axos (*ib.* 11*a*), from which it only differs in using Λ instead of Π(λ), Λ instead of Υ, Σ instead of Σ ("crooked iota"), and, as I suppose, Τ instead of Λ (γ). It seems distinctly more archaic (e.g. with Ε, not Ε, and Μ, not Μ) than the alphabet of the older Gortyn insc. (*ib.* 9*g*), and it would therefore seem from Roberts' data (p. 54), that this fragment, if it were in Greek, could not well be later than 600 B.C. But a small town like Praesos might well lag behind Gortyn by many decades; and it is reasonable to suppose that a new Greek alphabet would be adopted later by Eteocretans than by Greeks. In fact, as Mr. Roberts reminds me, it is never safe to fix too narrowly a date after which we hold it impossible for archaisms of this kind to survive. In this case he thinks it would be rash to infer from the alphabet that the insc. was necessarily earlier than 500 B.C.

<sup>1</sup> 'Its centre lies about  $\frac{1}{2}$  in. to the left of the hasta of Σ.'

§ 16. It has been generally assumed that the hasta in l. 2, (3rd and 9th sign from the left), and in l. 3 (fifth sign from the left) is merely an interpunct as at Gortyn (Roberts, p. 40); since “the crooked *i*” (¶) is quite clear in l. 1 and in the conjoint letter **A** *ai* in l. 5, the hasta cannot well be an *i*. If it be an interpunct,<sup>1</sup> it is perhaps omitted in l. 5, where the last word has been identified (*e.g.*, by Evans *L.c.*) as the name of the Perso-Egyptian goddess Anahit, *Anāhit*.<sup>2</sup> Here, as appears from the conjunct letter, the engraver was short of room: but if we hold that he omitted the interpunct here, I do not think we can be sure that he used it with complete regularity elsewhere; so that I am inclined to assume in l. 1 that a word ends at *-mit*, since the same ending is possible in the *nomos*-insc. (see below § 29.)

§ 17. If **MAM** ends a word (and even if not), it is practically certain that **A** is a vowel, namely *u*. The ending *-un* occurs clearly in the *nomos*-insc. If with Comparetti we took **A** = γ, we should have πγν for our ending and be obliged to make *-ν* syllabic; and this collocation of sounds, whether final or medial, seems to me unlikely, even apart from the difficulty of taking ¶ as = π.

§ 18. The sign ¶ which is quite clear in l. 3 and l. 5 must be either γ or π. I know of no examples of ¶ with the value π save in Etruscan or Etrusco-Italic, and fairly late Roman inscs. (133 B.C., see *Ital. Dial.* p. 461). No such form can be found in any of Roberts' tables (*Gr. Epig.* pp. 382–91); the only form at all like it is the rounded P at Eleutherna (*ib.* p. 46), but this alternates with P. On the other hand ¶ appears as γ in Boeotia and at Locri Opuntii (*ib.* p. 388–9), and as it is precisely with these alphabets that our alphabet shares L for λ, γ is far more probable. It cannot be λ since we have L twice; and we have then to recognise the group -γσ- (in l. 3) beside ξ in l. 2, and conclude that they represented (at least slightly) different groups of sounds.

<sup>1</sup> It was suggested by Mr. A. E. Cowley, in the *Athenaeum*, March 16, 1902, that the hasta was used to mark off the proper names [like the ‘cartouches’ in Egyptian hieroglyphic inscs.] and he proposed therefore, to regard *Barxe* and *Agset* (which he read *Apsel*) in that way. But there seems some difficulty in supposing that two names in two separate lines, which can hardly both refer to one person, and which come too far from the beginning (see § 20) to be naturally referred to the person, if there was one, whom the insc. chiefly concerned, should be decorated in this way, especially if *Anāhit* is thrown in without any such token of respect. But I quite agree that, if they were proper names, they would not suggest an I-Eu. language.

<sup>2</sup> See below § 30.

§ 19. The following notes, mainly from Mr. Dawkins, relate to the doubtful signs.

In the first line, which runs from r. to l. the first visible sign, which stands above the last *o* of the next line, is "the bottom of a vertical hasta," [R.M.D.], but "there seems to be a trace of a circle as for  $\phi$ , thus  $\zeta$ ?"

"The sign after the  $\zeta$  is, I think,  $\beta$ , the top and the middle bars being fairly plain." [R.M.D.] On the impression there is also fairly clear evidence of the upper half of the vertical.

In l. 2, "the space allowed to the third sign is not more than that given elsewhere to the hasta interpungens. This, and the vagueness of the cross-piece ( $\dagger$ ) make it probable that the latter is accidental."

In the last sign but one, "one can only be certain of the bottom of a vertical, though there is perhaps a bit of a circle left (thus  $\gamma$ ) on the edge of the gash that crosses the stone."

In l. 3, "as to the signs after the first  $\zeta$ , the  $\Delta$  is, I think, certain, but between this and the  $\zeta$  the stone is broken away, leaving no part of the intermediate letter." [R.M.D.] But the space left would only suffice for a hasta, or one of the narrower letters, not for either  $\Lambda$ ,  $\alpha$ ,  $M$  or  $M$ .

"The two signs at the end of the line seem to be  $M$ ;  $A$ . The first of them I take to be  $\Lambda$ , because the right-hand stroke slopes at an angle and is not perpendicular as in  $\Gamma$ . The second of these two signs (*i.e.* that on the left) seems to be  $M$ , not  $M$ , because there is no trace of a second perpendicular, and at the point where the third stroke ends, the stone does not seem broken away. But the sign is possibly  $M$  rather cramped up, as being at the edge of the stone, which seems to show traces of the 4th or 5th (*i.e.* the two left-hand-most) signs of this letter." [R.M.D.] On the impression also I seem to recognise the fourth stroke, slanting downwards towards the left.

The fourth sign from the right of l. 4 is badly broken. Comparetti read it as  $\phi$ . All that remains is the lower tip of the hasta, and possibly the upper also, and a faint stroke slanting upwards above the lower on the right. There seems however to be a rounded break in the middle of the line, which might be the whole globe of  $\phi$  bodily broken away. "The sign in question seems to be only the hasta interp. It has allotted to it exactly the same space as that in l. 3, and the possible hasta in l. 2 between  $M$  and  $B$ , and even a little less than the next hasta between  $S$  and  $A$ . The letter before is  $M$  since the lower tip of the second hasta remains." [R.M.D.]

The last letter of this line may be *s*, *n*, or *m*, or even *g*; only  $\dagger$  is left.

In l. 6 "traces of a  $\phi$  can, I think, be made out before the first  $a$ . The group after  $e$  is, I think, certainly  $M\Lambda\Gamma$ ." [R.M.D.]

§ 20. The stone, as we have seen, is complete on the left hand, and the first letters come beneath one another with some regularity.

Since it is  $\beta\omega\nu\sigma\tau\rho\phi\eta\delta\delta\nu$ , it is best to transliterate it two lines at a time; we have then

	?		?	
1, 2	$\phi$	.. nkalmiteos barxe a .. $\phi$	o	
3, 4	ark ? agset meumarkkokles ues	?	?	?
5	.. $\phi$ asegunanait	?		

§ 21. If the sign after *ark* in l. 4 is really *r* (and the upper two-thirds of it (*P*) is quite plain in the impression [and the stone R.M.D]), it must be syllabic.

The query after *k* in l. 3 indicates the doubt whether any letter is missing there or not.

### III.—*Other Sources of Information.*

§ 22. Before we proceed to consider these inscc. further, it is well to notice what other scanty means we have of learning something of the language of Praesos. It will be seen that my object is merely to collect from such trustworthy sources as are accessible to me, any material which may possibly contain or illustrate Eteo-cretan forms; not to discuss the history of the district, nor even to offer a complete list of place-names; much less to enter into topographical questions which can only be profitably dealt with on the spot.

First, Mr. Bosanquet tells me<sup>1</sup> of two other forms, found inscribed in the same neighbourhood: one is on three discs of terracotta pierced for suspension, and therefore probably labels. Each of the discs bears the legend ΣΜΩΡ. The other form is on the broken lip of a pithos and is probably incomplete at the beginning: it seems to be the possessor's name in the Genitive . . . ΠΑΝΣΩΝΟΣ.

Here we may remark that the appearance of *ω* beside *o* seems to separate the word from our two inscc. where we have only *o*; and therefore at present it would be unwise to assume that the forms belong to anything but Cretan Greek. On the other hand the form *σμωρ*, however abbreviated it may be, does not suggest any Greek word. The word *σμύνθος* 'mouse' is called Cretan by some authorities,<sup>2</sup> and the comparative rarity of the initial group *σμ-* in Greek,<sup>3</sup> makes the coincidence of the two words just worth notice, as suggesting that they may both be Eteo-cretan. It is a noteworthy coincidence that the same initial sounds appear in a month-name at Magnesia (see § 24), Σμισίων, Dittenb. 553. 1. Note also the similarity of the ending to that of Λαβύριθος and the Cretan places Σύριθος, Πύρανθος, and the Cretan month Ραβίνθος (Kretschmer,<sup>4</sup> *Einleitung in d. Gesch. d. Griech. Spr.* pp. 402 f.), not to add the *Cnosius Rhadamanthus*. See also below § 31 f.

§ 23. Of the other forms mentioned as Cretan and collected by Meursius *Creta* (p. 255)<sup>5</sup> we may note

(1) Forms which show the change of *αλ* to *αυ* before *κ*, *σ*, *μ* (*ανκὰ*, *ανμὰ*, *ανσος*), and

(2) Those showing the change of *ελ* to *ευ* before *γ* (*θεύγεσθαι*), since neither of these changes has yet been found in any Greek dialect of Crete:

<sup>1</sup> In a letter of October 2, 1902.

<sup>2</sup> Tzetzes in *Lycophr.* 1307; Schol. Ven. ad II. 1. 39; cf. Strabo 13. 1. 48., p. 604.

<sup>3</sup> Most commonly *σμ-* became *μ-* e.g. in *μία* for *\*σμ-ια*, cf. Lat. *sem-el*. The precise conditions of this change have not been determined for any of the dialects.

<sup>4</sup> Kretschmer does not give the sources from which he takes these names, and I have not been able to ascertain in what part of the island the places lie. Σύριθος, Πύρανθος are from Steph. Byz.

<sup>5</sup> I owe this reference to Mr. Bosanquet.

(3) Also the following single forms :

ἄκαρα· τὰ σκέλη, Κρῆτες      }  
 ἀμήτορες· κιθαρίστας, Κρῆτες      } Et. Magn. and Hesych.  
 asplenium 'hac curant lienosos' Vitruv. I. 4.

and the heroine Βριτόμαρτις (Strabo, 10, 4, 12 p. 479) which Solinus (11) explains as meaning 'dulcis virgo.' Her temple stood on the 'Chersonese' which formed the emporium of Λύττος ('ην δὲ ποιήτης<sup>1</sup> Λύττον ὀνόμασεν' Strabo ib.) a town lying East of Cnossus, on the North-west slope of the Dictaean range. From Hesychius<sup>2</sup> we may further perhaps cite a few Cretan forms which do not seem to possess an obvious etymology in Greek, nor to show obvious marks of Cretan Doric such as e.g. the special treatment of -σθ- (Gortyn -θθ-, Axos -στ-).

ἄγδος· ἄγγος Κρητικόν  
 βέλλιον· ἀτυχές, Κρ.  
 βρίτυ· γλυκύ, Κρ.  
 γάρσανα· φρύγανα, Κρ.  
 δίβαν· δῖφιν, Κρ. (also δίφαν id.)  
 δροῖον· καλόν Κρ.  
 ιόβας· κάλαμος παρὰ Κρ.  
 μαλκενίς· ἡ παρθένος· Κρ.

Further the name of the healing herb *dictamnum* which Venus plucked from Cretan Ida (Verg. *Aen.* 12, 412) can hardly be separated from Mt. Dicta, and the form of the derivative is so unusual in Greek as to suggest that it belongs properly to the language of the folk in whose territory the most celebrated end of that mountain lay : cf. δέ Σέδαμνος and *Rhithymna* below (p. 138).

§ 24. There are two Greek inscs. which concern Praesos ; one of the (early) third century B.C. (Dittenberger, *Sylloge*, 427), the other of 139 or 133 B.C. (ib. 929). The first is a gracious concession of certain privileges by the town of Praesos to its two subject communities situated on the coast to North and South respectively, Praesos being on the top of the ridge inland. The inhabitants of these towns are called respectively Σταλίται<sup>3</sup> and Σηταγῆται, (the first town being named as we know from Stephanus Στάλαι). Praesos is not named, but its inhabitants are called Πραισιώνι.

The other insc. is an award of certain arbiters from Magnesia, in Asia Minor, upon a dispute between the two Cretan towns, Ιεράπεντρα and Ιτόνος, which lay respectively on the coast to the South west and North-east of Praesos ; between them, and their quarrels, as we learn from this insc., the unhappy Praesos was crushed out of existence at some date between 146 and 139 B.C. The two survivors, however, still quarrelled over their boundaries, until the Romans ordered them to submit the matter to the arbitration of their ancient friends (and presumably kinsmen<sup>4</sup>) in Magnesia ad Maeandrum (just at the junction of Ionia, Lydia,

<sup>1</sup> *Iliad*, 2, 647.

<sup>2</sup> I have to thank my friends Professor Flamstead Walters for his kindness in verifying these glosses and some other references in this section, and Mr. H. T. Francis of Caius for similar help.

<sup>3</sup> I take the accents in this section from Dittenberger, but I imagine they are mainly conjectural.

<sup>4</sup> The antiquity of their friendship, 'to all the Cretans (*Κρητέας*)', is described rather wordily in ll. 22-25 : it was 'attested by oracles and all men's knowledge.'

and Caria). Accordingly 15 Magnesians heard the pleadings of both sides and gave their award. In the course of this document they describe the boundaries between Hierapytnaeon and Itanian territory, and as the line was drawn close to the lands of the extinguished Praesos, it seems likely that some at least of the names of the land-marks mentioned may belong to the language of that town. These are

- οἱ Δραγμίοι (mentioned as formerly neighbours of the Itanioi).
- ὁ Σέδαμνος, a river.
- ἐς Καρύμας, a place, (? Gen. Sing. or Acc. Plur.)
- ἄ Στεφάνα, a circle of some kind, ‘περιαμπέτιξ ὡς ἄ στ. ’
- ἐς Δορθάνιας (? Gen. Sing. or Acc. Pl.),
- ὅ λάκκος.
- ὅ Μόλλος.
- ἄ δηράς.
- (δι)Ατρω(α).
- οἱ Πραισίοι.

We may note also that the temple of Dictaeon Zeus was outside the territory in dispute, ‘enclosed by walls and other boundaries and signs’; the Itanians ‘proved that the disputed territory had been cultivated, and was not as the Hierapytnians alleged, sacred and un-tilled.’

In Itanian possession were the tract of land called ‘Ελεία (North of Praesos), and the island Λεύκη to the South.

§ 25. Turning now to Strabo (10, 4, 6 ff. p. 475), we find that, according to Staphylos, Praesos was the town of the Eteocretans, where was the temple of Dictaeon Zeus; and that the same writer assigned to the Eteocretans the South of Crete, to the Dorians the East, and to the Cydonians the West. Strabo adds that presumably the Eteocretans and Cydonians were autochthonous.

It may be useful to add here the few remaining names of places mentioned by Strabo which lay within a reasonable distance of Praesos, *i.e.* in the Eastern third of Crete, East of a line<sup>1</sup> drawn, say, from Cnossos to Gortyn and Leben. They are

- ἡ Κνωσσὸς.
- Καιράτος, a river flowing by Cnossos,
- Ἀμνιστὸν (? -ος) the old emporium of Cnossos,
- Μίλητος, on the coast North-east of Lyttos.

Μιώα, a little further East, at the South corner of a bend in the North coast, West of Praesos.

Λεβήν and Μάταλον, the South-east and South-west emporia of Gortyn, and Αγθαῖος, a stream hard by. A lover from Leben was commanded to fetch as a pledge of his affection ‘the dog<sup>2</sup> in Praesos.’

<sup>1</sup> Of names west of this line (excluding pure Greek formations like Κρίου μέτωποι, and adding in italics names taken from Pliny 4. 20. 59) we may note, proceeding from E. to W., on the North, *Eleuthernae*, *Αμφίμαλλα*, *Rhithymna*, *Κίσαμος*, *Απτέρα*, *Κυδωνία*, *Τίτυρος ύπερος*, *Pergamum*, *Δικτυνναῖον ύπερος*, *Κίμαρος* (prom.) *Φαλάσαρνα*, and on the south ἡ Γόρτυν, *Ρύτιον*, *Φαῖστος*, *Λίσσην*, *Φοίνιξ* ὁ Δαμπέων, the island *Gaudus*, and in the centre the inmountain ridge of *Ida* ('Ιδα) continued in the West by that called τὰ Λευκά. I add these names here because it seems likely that the Eteocretans once occupied a larger area of the island than that to which we find them confined in historical times.

<sup>2</sup> This proverb has been kindly explained to me by Dr. Jane Harrison. Pandareus, King of Lycia, stole (or received from Tantalus, who stole), the golden dog of Minos, a life-like work of

**Δίκτη**, the sacred town and mountain lay close to Praesos; the town was at the East end of the ridge.

**Σαρώνιον**, the North-east extremity of Crete.

From the coins of the district we learn further the names Ἀρκάδες (Head, *Hist. Num.*, p. 387), *Bianus* (p. 388), *Otos*, Ὁλόντοι (p. 400), Ηριάνσος, Ηριαντεῖς (p. 404), *Paénkos* (p. 405), Τυλίσιοι (p. 406).

From Pliny (4, 20, 58 Sillig) we may quote some of the islands off this part of the coast: *contra Itanum, Onisia, Leuce, contra Hierapytnam, Chrysa . . . , eodem tractu, Butoa, Aradus, ante Sammonium promuntorium . . . Sirnides . . . Armedon.*

§ 26. Finally I should perhaps mention a remark of Agathocles quoted by Athenaeus (9, 376a) to the effect that 'all' (i.e. the Cretans) think the pig very sacred and will not eat it, because it suckled the infant Zeus on Mt. Dicte, and that 'the Praesians even sacrifice in honour of<sup>1</sup> a pig (*ἱερὰ ρέζουσιν* νῦ) and this is counted the initial rite (*προτελής*) of their sacrifices.'<sup>2</sup>

#### IV.—Notes and Queries on the Language.

§ 27. It will be worth while, I think, to consider certain points which appear on the first view of the inscs., and to state some of the questions which the phonetic and apparent morphological character of the legible words suggests.

The endings which are certain are,

(a) in the *nomos-* insc.

(i) -spha, -ano, -mun, -tat, -ona, as coming at the end of a line (§ 2 sup.); -nai also in l. 2 where the reading is practically certain.

(ii) -ala as coming before *φraisoi-* in l. 2 and -los, as coming before *φraiso-* in l. 6; and hence probably -mes, since one naturally takes -nomos elos together.

(b) in the *barxe-* insc.

(i) as coming before interpuncts -os, -ixi, -set.

Hephaestus, which had stood in the precinct of Zeus. When Hermes came to demand the dog back, Pandareus denied that he had ever had it, but the dog was found, and the thief punished. One of the versions of the story is illustrated by an early black-figured vase in the Louvre (Pottier, *Cat. A.*, 478, pl. 17. 1). For further details I must refer the reader to c. v. of Miss Harrison's forthcoming work on *Greek Ritual and Religion*, or to the Art. *Pandareus* in Roscher's *Lexicon of Mythology*.

<sup>1</sup> This is the only meaning of the Dat. after *βέζειν* recognised in L. and S., and it is common. The victim stands always in the Acc.

<sup>2</sup> My friend Dr. J. G. Frazer has kindly called my attention to a curious account of some pre-Hellenic customis at Phaestos recorded by Antonius Liberalis, *Metamorph.* 17 *ad fin.*: there was a festival called the *ἐκδύσια*, in honour of *φυτίν Δητά*, and in memory of a miraculous change of sex. See further *Am. Journ. Archaeol.* 3. 458. If any weight be attached to the statement of Staphylus quoted above, Phaestos may have been originally Eteocretan, since it was the southernmost town of any note in Crete.

(ii) as coming before *Anait*, if that name be rightly separated (§ 16), -*gun*; but this rather belongs to the ‘probables’ of the next section.

§ 28. The following points seem to me highly probable in the *nomos*- insc.

(i) -*tsa* in l. 7 seems to end a word, since, if not, -*tsaado-* would offer with *phraisoinai* the only examples in either insc. of doubled vowels: this would naturally carry with it the -*sa* in l. 4 and l. 6, leaving *nomos* and *tois* as complete words.

(ii) *tois* in l. 4 is probably separate from *ste-* since there is no other doubled consonant, and we have just seen that it is probably separate from the preceding *sa-*.

(iii) At these points (*sa-nomos-elo-* and *tsa-ado-*, less clear at *sa-tois*) there appear to be interpuncts (§ 5 sup.), and though Mr. Bosanquet’s view that they are all accidental makes it impossible to lay stress upon them, I still venture to think that the occurrence, even if slightly irregular, of interpuncts on the older insc. (§ 16 sup.) makes it *a priori* likely that we should find some on this. Hence I am inclined to trust the appearance on the photograph and impression of a fairly solid interpunct after -*animest* in l. 5. Of the other puncts mentioned in § 5 as being “faint but possible,” I am prepared to accept Mr. Bosanquet’s view.

(iv) Mr. Bosanquet is confident, after repeatedly examining the stone, that the letters *irere* are the last in the broken l. 8 and occur also in the middle of l. 9, the whole of which he reads . . . *ire irereiet*. Now this does not prove that *irere* is a single word,—for instance we might find *irereiet* in l. 8 too if we had the whole of it—but it does show that *irere* must be treated at least as a unit element and separated from the preceding letters *ire* in l. 9 and *ina* in l. 8.

Its recurrence makes it at least probable that we have to do with a document of a formal nature, either legal or religious, or both. That it is a religious document is further suggested by the fact that a vanishing tongue is preserved longest in religious use; just as Welsh in some parts of Wales to-day.

The two words *ire irereiet* have a strange though not complete resemblance in endings to the Umbr. perf. opt. *stili steteies* “steterit steterint” i.e. “(whenever) he or they may have stood.”

§ 29. We have now by purely graphical evidence, without any linguistic assumption whatsoever (save that we are dealing with an inflexional language), marked off twelve certain endings (-spha, -ano, -tat, -ona, -ala, -los, -ina, -ire; -os, -rxe, -set, and -mun) and eight probable ones (-nai, -gun, -tsa, -sa (twice), -est, with *tois*, and *nomos* as complete words); and perhaps we may make our eight probables into ten by taking -mit as the same ending in -nkalmi<sup>t</sup> and -epimit.

Those who are unfamiliar with inscc. in unknown tongues may think that our progress is rather slow; to others it may seem uncomfortably rapid. But it is clearly time to take a further step and to treat the inscc. as something more than mere collections of letters and vocables. To do so it is necessary to set up a working hypothesis as to the nature of the language. Even from what we have seen there cannot be the least doubt as to what that hypothesis ought to be. But we may now advance to three general negative considerations which appear to me, for this purpose, decisive.

§ 30. (a) We have seen enough of these inscc. to be assured beyond any possibility of doubt that their legible portions contain no combinations of vowels or consonants which were not common in at least some two or three Indo-European languages at, say, 500 B.C.<sup>1</sup> The same is true of the place-names enumerated in §§ 24-5. This is remarkable: of no Etruscan<sup>2</sup> insc. containing even half a dozen words can the same be said.<sup>3</sup> The Punic fragment in the Poenulus (ll. 930 ff.) has a totally different look, though it has been copied by Latin scribes for centuries.

(b) Of twelve certain and ten probable endings there are none which are not common in I-Eu. languages of that date.

(c) I am told by several Semitic scholars whom I have consulted that

<sup>1</sup> The one exception would be -itspha at the end of l. 1 of the *φraisoi*-insc. But we have seen some reason to separate the -spha.

<sup>2</sup> Take almost any page of Pauli's *Corpus Insc. Etrusc.*:

No. 250 *larīs sesetua lumīcial*

No. 254 *arnθ sesctna velisnal*

*larθi verθrnei θenus a pesnasa*

No. 432 *larθi titlnei ciarθisa*

No. 425 *l aveni hapre tlapnal*.

<sup>3</sup>\* In view of some conjectures hazarded by Mr. A. E. Cowley in the *Athenaeum* (March 16, 1901), it is well to add that this negative statement applies also to Finnish, at all events so far as its vocalism is concerned. See any page of Eliot's selections (*Finnish Gram.* Oxford, 1890).

the presence of  $\pi$  beside  $\phi$ , the paucity of gutturals, and of dentals, the frequent juxtaposition of two vowels without an intervening consonant, and the presence of such a diphthong as *oi* give to the inscc. a thoroughly non-Semitic appearance.

(d) Let us observe further that the goddess *Anait* who was taken by Mr. A. J. Evans (*J.H.S.* l.c.) to have a decidedly Semitic colour, is, as I am reminded by my friend Prof. A. A. Bevan, a familiar figure in the Zend-Avesta (esp. in *Yasht* 5). A full description of her beauties and prerogatives as a feminine counterpart to our old friend *Apām napāt* of the Rig Veda, is given by Spiegel *Eranische Alterthumskunde* ii. p. 54. She is frequently mentioned by Strabo<sup>1</sup> and other writers as being worshipped also in Armenia and Pontus, and she had a great temple at Zela. Some of the features of her worship in Asia Minor, in the fourth century B.C. and later, show the corrupt influence of the Babylonian worship of Semiramis (see, e.g. Frazer, *Golden Bough*<sup>2</sup> III. p. 160 with his references); but it is clear that in origin she is Persian and therefore her name need suggest no Semitic affinities for any language in which it occurs. Indeed, seeing that 500 B.C. is the latest date which we have found probable (§ 15) for this *barxe*-insc., the goddess, if she did reach Crete, is perhaps more likely to have done so from Persia through Asia Minor than through Egypt, as appears from the relevant dates (*Bury, Hist. of Greece*, p. 230 ff.);

Persian Conquest of Lydia and Ionia	...	...	546–5 <sup>2</sup>	B.C.
Submission of Cyprus	...	...	...	circa 538
Adhesion of Polycrates of Samos	...	...	...	526
Conquest of Egypt and Cyrene	...	...	...	525
Suppression of Polycrates	...	...	...	523

Mr. A. J. Evans (*J.H.S.* xvii. p. 375) was inclined to compare the word *barxe* with the Carthaginian town *Barca*; but no Semitic scholar whom I have been able to consult can suggest any method of connecting the forms. In spite, therefore, of the many links between Cretan and Egyptian culture which Mr. Evans has brought to light (*J.H.S.* ib.; cf. also *Bury, Gr. Hist.* p. 7 ff.) we have no substantial warrant for adding this insc. to their number.

§ 31. Let us set to work then on the working hypothesis that the language of these inscc. belongs to the I.-Eu. group,<sup>3</sup> and see whether it

<sup>1</sup> e.g. II. 8. 4 p. 512 and II. 14. 16 p. 532. Other references will be found in Spiegel l.c.

<sup>2</sup> Or 541, according to Busolt, *Griech. Gesch.*<sup>2</sup>, ii. p. 502.

<sup>3</sup> [After this paper was in type I received from Mr. Bosanquet a few brief expressions of opinion sent to him by scholars to whom he had submitted photographs of the *nomos*-insc. It is

lands us on any firm ground, in mere fog, or on the rocks. In dealing with such battered fragments we shall be extremely fortunate if we can escape the third of these possible fates; and until we can obtain some further material, we cannot expect the fog to lift from more than a small portion of the texts before us.

We observe

(a) that the language possesses all five vowels, *a i e o u*, some of which at least probably represent the same original sounds; but that we know nothing of their quantity—nor of any varieties of quality such as were indicated, for example, by *η* and *ω* in the full Ionic alphabet or by the crossed *i* (Ϝ) in the Oscan alphabet.

(b) that the language possessed the diphthongs *ai* and *oi*, and used them in places where they look original (in terminations, and in the word *tois*),

best to quote them as they stand; though some of the suggestions are excluded by our improved text.]

M. Salomon Reinach writes: ‘I am convinced that the language is Aryan, though by some strange chance the last word of the first line is pure Semitic.’ [M. Reinach seems to be thinking of the Heb. *mitsvah* ‘commandment.’]

M. Bréal writes: ‘Tout inconnus qu’ils soient, les mots *sermonem redolent Graecum*. On peut supposer quelque dialecte grec ayant son aspect particulier, et dont les règles se laisseraient voir si l’on avait un spécimen moins court et moins mutilé. Dans l’hypothèse grecque, on pourrait signaler le mot έστε trois fois répété (l. 3, 4 et 5). Ce mot, ainsi que la répétition du nom de Praesos, pourrait faire croire à une délimitation de territoire.

Le mot finissant en *-σατο* (l. 3) a l’air d’être répété à la ligne suivante.

Hactenus mihi videor satis tolerabiliter potuisse dicere. Reliqua rectius omittam.’

Prof. A. H. Sayce writes: ‘The inscription found some years ago on the site of Praesos which I will call Pr. I. falls into two clauses, each of which begins with a word, or words, with the suffix *-s*, and therefore presumably in the Nom. Sing., and ends with a word with the suffix *-t*, presumably the 3rd pers. of a verb. I read . . . νκαλμιτκ[ι]ος βαρόε α . . . οα(?)ρκ . απσετ Μεγ[σ]αρ-κρκοκλες γε . . . ας ἐπγναναιτ. Perhaps the second word is an early form of the name of Praesos.

‘The newly discovered inscription, Pr. II., can similarly be broken up into two initial clauses each with its Nominative and 3rd person of the Verb. We must assume that, as in Pr. I., so in Pr. II., the perpendicular line can denote a division between words as well as the letter *t*. Accordingly we get: . . . οναδεσεμε τεπιμιτ σφα . . . [σαα?] δοφ . . . αραλα Φραισοι ιναι . . . ρε, and . . . κανουμος ελος Φραισον . . . [ι]τρ σααδοφ τενο . . . μαγρα ιναι ρε . . .

‘In the bilingual (Mysian and Greek) inscription discovered on one of the columns of the temple of Athena at Pergamon we find similar grammatical forms in the Mysian text. The Greek has Παρταρας Αθηναιη, the Mysian U-ŷ-\*t-a-i . . . B-a-r-t-a-r-a-s p-a-u-i-t. I would compare the divine name μητρι'ιπται found by Prof. Ramsay in an inscription at Goelde in Lydia, and translate: “to Vipta . . . Bartaras has dedicated.”’

[The fulness with which the epigraphic data have been treated in the opening sections of this paper precludes me from entering into any discussion of these suggestions, as it would involve fruitless repetition. This is a convenient place to mention that in the *Times* of April 1st, 1901 (or some closely adjacent date) Col. C. R. Conder proposed to recognise the *barae-* insc. as Indo-European, adding an adventurous ‘translation.’—R.S.C.]

(c) but that only one -*u*-diphthong (*meumarkr-*?) occurs, and no tauto-syllabic *ei*; the ending -*eiet*, if it be an ending, shows the -*i*- only as a consonant between two vowels. (Something must have become of these diphthongs, esp. the very common I.-Eu. *ei*. We should naturally infer that it had changed to *e* or *i*—the former occurs more frequently, and perhaps in the most suspicious places, e.g. in the second syllable of *irere-*, and in *clos*).

(d) Final -*t* appears in what look like the 3rd persons (Sg. or Plur.) of Verbs (-*epimit*, -*nkalmit*, -*agset*, -*gutat*, *irereiet*) but not elsewhere. This is a marked divergence from Greek.

(e) We have identified at present no example of final -*d*.

(f) Intervocalic *s* appears to be preserved in *φraiso-* but here and in other forms possibly containing it (-*desiemet*, *steφesiamun*) we could not be certain that originally it was a single -*ss*- or an *s* at all. But the impression of its singleness is confirmed by some of the place-names of the district immediately round Praesos (§ 25): Ἀμνιστὸν, *Onisia*, and the island *Chrysa*.<sup>1</sup> Somewhat further off, though still in Crete, we have *Kίσαμος*; (it would be imprudent to lay any stress on the -*σ-* of the month Σμισίων, so far off as Magnesia, § 22 sup.)<sup>2</sup>

The name *Chrysa*, which I see no reason to doubt (the MSS. of Pliny<sup>3</sup> agree in -*sa*) seems to supply a needed etymological link of some interest. The word χρυσὸς with its single -*σ-* is a puzzle in Greek, and has no clear Indo-European congeners. It was long ago suggested by Pott<sup>4</sup> that it came from the Hebrew *chârûts*; but by what route? What more likely intermediary than the brilliant court of King Minos, and an island long the half-way house between Egypt and Europe?<sup>5</sup> I venture with some confidence to add χρυσὸς to our list of Eteocretan words. Observe also that *Chrysa* is not Greek; the Greek derivative would be χρυσέα. Nor does the importance of the name end here: for, as every one knows, the same name appears in the Troad (δεῖπνος Χρύσην ἀμφιβέβηκας, Il. I. 37—not *Xρυσῆν*) and with others long since pointed out ("Ιδα,

<sup>1</sup> Kiepert's map gives *Chrysea*; his authority I cannot find though I have searched the Indices to many Greek authors. If (as often in Kiepert) it be one of the later geographers, Pliny is clearly a better source.

<sup>2</sup> The temple of *Athena Salmonia* near Itanus (Head, *Hist. Num.* p. 398), a sea-goddess, shows that *initial s* in this region was preserved as in Lat. *sal*, not changed to *h* as in Gr. *άλς*.

<sup>3</sup> See Sillig's critical note *ad loc.*      <sup>4</sup> *Etym. Forsch.* i. 141.      <sup>5</sup> Bury, *Gr. Hist.* p. 7 ff.

*Πέργαμον*) connects Crete with the Trojans; and not Crete merely but the Eteocretans. Further it is at Chryse in the Troad that stood the temple of Apollo Smintheus and we have already (§ 22) seen reason for suspecting that *σμίνθος* is Eteocretan. No wonder Πέργαμον and Κίσαμος show the same suffix—to which too that in the river Σέδαμνος (§ 24) is akin.

This retention of -σ- between vowels separates Eteocretan from Armenian, Greek, and Celtic (where it disappeared); from Zend (where it became -h-); from Latin and Umbrian and Teutonic (where it generally became r); and ranges it on the more primitive level of Oscan, Venetic<sup>1</sup> and Messapian (e.g. Ven. *Laso Pauli* p. 324; *Padusa* fl.; *Brundisium*); of Phrygian probably (*akaralašun* (others read it as -γαζυν) *esurzozoz*, *zosesait* appear in the inscc. collected by W. M. Ramsay *Journ. R. Asiat. Soc.* xv. (1883) pp. 128 ff.—not to mention *Χρύση* and other names in the Troad); and of Sanskrit.

Even if we yielded to an obvious guess and took *tois stēfesi* (?) as a Loc. or Inst. Plur. the s would probably be written for -σσ-; that at least is certainly the earlier sound in this Case. But I doubt the wisdom of supposing that the Dat. Plur. in Eteocr. ended in -σι; the -ι(ν) is almost peculiar to Greek in this form. And anyhow it would be rash to assume that *tois* has the meaning merely of an Article. A possible division of the words which suggests itself is *stēfe siamun*, 'to which (or 'to them') Siamon was a boundary'; on -e cf. § 34 (ii) below.

(g) There is one example of consonantal u before a vowel, ue- in l. 4 of the *baxē*-insc. and the diphthong eu- appears as we have seen.

(h) So far as we may trust the identification of *Χρύση*, *χρυσὸς* as Eteocretan forms, it combines with the φ in *Φraisoi* (beside *Πραισός* § 13 sup.) and in *stēfe-*, and ἀ *Στεφάνα* (§ 24) and the θ of *Δορθάννας* (*ibid.*) and the ending -(i)vθος, confirmed by the aspirates in *Φαιστος* and *Rhithymna*, which were places only slightly further off, to suggest that the Eteocretan sounds denoted by φ, χ, θ did not differ widely from the Greek aspirates,

<sup>1</sup> Pauli himself was under a misconception on this point, as Kretschmer (*Einleit. in d. Gesch. d. Griech. Spr.* p. 275) remarks. The examples of -s- are abundant.

<sup>2</sup> Some other possibilities as to *τιαμων* may perhaps be set down here, though no one of them can become in the least probable without further evidence: (1) Mr. Cecil Smith tells me of an epithet or surname of the sun-god or moon-god Men, which appears in Lydia and is spelt *τιαμον* (Waddington, *Insc. d'Asie Min.* p. 215; Ramsay, *Cities, etc.* i. p. 341). It is conceivable that *τια-* and *τια-* should be different attempts to represent the same (palatal?) sound in Greek alphabet. (2) In the 'Sequanian' Celtic Calendar of Coligny (*Comptes Rendus de l'Ac. d'Insc.* 1897, 703) one of the winter months is called *Giamon*, and (3) another month, sixth earlier in the list in the same calendar, is called *Samon*. Mr. E. B. Nicholson has printed a most interesting, if somewhat adventurous discussion of this Calendar in his pamphlet called 'Sequanian' (Nutt, 1898). Thurneysen has an article on the insc. in the *Zeitschr. f. Kelt. Phil.* 1899, p. 523).

though, as we have seen (§ 13)  $\phi$  was probably not quite identical with the Greek  $\phi$ , and though the occurrence of  $-\phi t-$  (see below) shows that in the fourth century B.C.  $\phi$  was at least partly spirantic as indeed the aspirates were even in Attic by that time.<sup>1</sup>

Possibly a parallel (but further developed?) change in the case of  $-\kappa\tau-$  is implied in the fact noticed in § 23 that the Homeric  $\Lambda\nu\kappa\tau\sigma$  has become something spelt  $\Lambda\nu\tau\tau\sigma$  in the time of Strabo.<sup>2</sup>

(i) If the language is Indo-European of the 4th cent. B.C., we shall not think it very likely for a word to end with a  $\phi$ , whether that symbol denotes a true aspirate, or some spirantic sound; hence we shall read in l. 7 *adoφte-*, not *adoφ te-*. Beside this we have *-oφsanō*<sup>3</sup> at the end of l. 3. Now in what I.-Eu. languages do we find such groups as  $-\phi t-$ ,  $-\phi s-$ ? We have  $-ft-$  out of  $-pt-$  in Zend,<sup>4</sup> Germanic,<sup>5</sup> and Osco-Umbrian.<sup>6</sup> But in Zend and Germanic the change of  $p$  to  $f$  is not closely parallel since it happens under many other conditions than that of a following  $-t-$ . The same is true of a parallel change in Armenian.<sup>7</sup> The changes in Celtic<sup>8</sup> (e.g. of *septem* into *sccht n-*) are closely parallel, but here  $\phi$  was a very weak sound altogether and in fact vanished completely everywhere outside such combinations, so that it would be unwise to lay much stress on this com-

<sup>1</sup> On the vexed question of the date at which  $\theta$ ,  $\phi$ ,  $\chi$  became spirantic see e.g. Brugmann, *Grundriss I.*, § 739, who inclines to a more conservative view. But such scensions as  $\phi\lambda\delta\sigma\phi\sigma$  in Aristoph. *Ecc.* 571, point to a partly spirantic pronunciation (e.g. something like  $-\pi\phi h-$ ) in vulgar Attic, although spellings like  $\epsilon\chi\omega$  in Attic inscr. (exx. in e.g. Meisterhans *Gramm. d. Att. Inschr.*, p. 66) show equally that there was a real  $-h$ - sound in the aspirate, or it could not be imported into another syllable. But it is to be observed that this "affricate" stage had arisen in some other dialects at a very early date, and that rather numerous examples seem to come from the sources roughly grouped together as "Aeolic," Pindar and Hesiod; cf. the Northern  $\bar{\beta}\alpha\kappa\chi\sigma$  (see e.g. Gust. Meyer, *Gr. Gram.*, § 210). Latin words like *bracchium* (from Gr.  $\beta\rho\alpha\chi\omega\nu$ ) carry this pronunciation back to a fairly early date in Magna Graecia.

<sup>2</sup> Professor Burrows points out to me that the form  $\Lambda\nu\tau\tau\sigma$  occurs in an insc. quoted by Frazer, *Pausan.* 3, 313, the date of which can hardly be earlier, and may be much later, than 300 B.C. (See K. F. Hermann, *Philologus*, ix. p. 694).

<sup>3</sup> On the use  $-\phi\sigma-$  for  $-\psi-$  if it stood alone no stress could be laid as it appears in many parts of Hellas (see e.g. Kirchhoff, *Studien z. Gesch. d. Gr. Alph.*, pp. 95, 116, 121, or the tables in Roberts' *Gr. Epigraphy*).

<sup>4</sup> Brugmann, *Grundriss I.* § 715.

<sup>5</sup> ib. § 793c.

<sup>6</sup> ib. § 769. Possibly in Venetic, though no examples either of  $-ft-$  or  $-pt-$  occur in the record we possess; but  $-ht-$ ,  $-hs-$  appear in Venetic for an orig.  $-kt-$ ,  $-ks-$  (*Rehtia-*, *Ahsns*), Pauli *Veneter* p. 256, just as in Osc.-Umb. There is a small Venetic river called *Tilavemptus*, where the *m* complicates the question. The Greek equivalent would be, I imagine,  $\tau\eta\lambda\epsilon\cdot\mathbf{Fe}μετδ\sigma$  'far-shooting.'

<sup>7</sup> ib. § 724.

<sup>8</sup> ib. §§ 774, 782.

parison. We are left with Osco-Umbrian (*e.g.* Osc. *nt̄eis*=a Lat. “\*opti” *i.e.* “optati, optabilis” Umb. *osatu* for \**opsātō*=Lat. \**operātō*<sup>1</sup>), with the similar Venetic *Rehtia-* ‘Iustitia’ (*cf.* Lat. *rectus*) as the nearest parallels. Now is it a mere coincidence that in Venetic also we have a feminine ending *-tsa*, for an earlier *-tia*, *e.g.* the girl’s name *Iiuvantsa*<sup>2</sup> ‘Πρέποντα?’ And that the neighbouring Cretan of Gortyn is the only Greek dialect which retains the nasal in this termination *e.g.* Cret. *πανσα*=Att. *πᾶσα*? In Phrygian we seem to have a similar ending in the adj. *Ovekrop-kwamηtisσa* ‘belonging to Vekrocome’ (Ramsay, *Kuhn’s Z.* 28, p. 395).

§ 32. This brings us to the last and most perilous part of our enquiry—the attempt to identify the character and construction of some of the words in the Praesos inscc. Let us proceed as before from the more probable to the more doubtful. The reader who wishes to be prudent should either disregard altogether the paragraphs in small print, or at least be always conscious that the conjectures they contain are only offered with the very greatest reserve.

(a) *nomos elos* looks like an Acc. Pl., governed by the previous Partc. in *-sa*, perhaps ‘(observing, or making) those? conditions.’

(i) *e-los* may have the vocalism of either Osc. *eiso-* “this” (=Skt. *et̄s-a-*) or Osc. *ɛ-ko-* “that.”

(ii) An objection to identifying *nomos* with Gr. *νόμος* which at first appears serious, is that if the two languages coincided so closely in one word, we should expect similar coincidences in others; and there is no other such resemblance save the enigmatic *tois stēfesi-*. But my friend Mr. F. C. Burkitt tells me that the Greek word *νόμος* was very widely borrowed in Semitic languages; and if in them, it might also easily be taken over in Eteocretan.

It is to be observed however that *νόμος* does not occur in the Gortyn tables; the phrase or ‘these laws’ being always *τάδε τὰ γράμματα*. (Roberts, *Epig.* p. 55). But at a date when the custom of writing down the law was being newly adopted, those laws which were written down may well have been called *γράμματα* in distinction from the older, unwritten *νόμοι* ‘customs’.

(b) *φraisoī* in l. 2 looks like a Dat. or Loc.

Remembering that in Strabo (p. 478) *Πρᾶσος* like *Κνῶσσος* is feminine one’s first impulse is to take the following *inai*, if that be the true reading, as an Adj. in agreement. It is less

<sup>1</sup> The first change was probably to *oſs-*, then to *oħs-*, then *os-* merely. In Umbrian the change took place even in a *-ps-* which had arisen from contraction; but Oscan keeps this later *-ps-* (Osc. *opſauim*, ‘\*operare, aedificare.’) On these changes generally see *It. Dial.* ii. p. 495, and more fully Von Planta, *Osk. Umbr. Gram.* i. § 207 f.

<sup>2</sup> But Pauli, *Ven.* p. 318, connects this and the masculine form *iiuvants* with Lat. *i(u)uentius*, a Gentile name common in Venetic areas, and this with *iuenīs*, etc. In either case the phonetic change would be the same (-*ntia* → -*ntsa*), but if Pauli’s interpretation is preferred we must not call it a Participial ending. I am bound to add that Pauli derives *Iiuvantsa* from an imaginary \**Iuventissa*; but for this he has absolutely no analogies to offer; nor do I think it can be made at all probable that such a form would have been contracted in Venetic.

probable that the whole group is the Dat. of a derivative Adj. like *ηρωτηνη*, *Iguvina* because there seems no preceding Subst. for it to qualify. If we guessed more wildly and equated it with Att. *ειναι*, we could only do so at the cost of the assumption that I.-Eu. *esn-* became *in-* in Eteo-cretan,—this assumption I see nothing to confirm. In Cretan Doric the Inf. ends in *-μεν*.

(c) Unless *φraiso* in l. 6 be some ethnicon in *-on-* to which I know no parallel in Southern languages,<sup>1</sup> we must take *φraiso* as a Gen. or Abl. and *-na* as a Postposition closely akin to the Greek *ανα* and to *-ne* in Lat. *superne*, *pone* for *pos-ne*, *done-* in *done-que*, Umb. *perne* ‘before’; also perhaps to Lith. *nu* (with Gen.) ‘from,’ Slav. *nā* (with Loc. and Acc.) ‘in, to.’ Both represent an earlier *\*nō*.

We should then be inclined to see the same form in the *prai-nū* of l. 8, where we have already seen that a word ends.

*praina* might equally well be the Neut.-Pl. of a derived Adj. like Lat. *pronus*; in either case we might see in the preceding *-ma* the end of a contrasted Adj. like Osc. *posmo-* “postremus”; *\*posma* (or *\*poma*?) *praina* “in things behind and before, last and first,” like the Umb. formula *pernaiaſ postnaiaſ* “before and behind” applied to omens, sacrifices, etc.

(d) If *φraiso* be Abl. or Gen., we shall attribute the same Case to *sarioφsano* (if that is how the word begins) in l. 3.

The word before it ends in *-tor*, which looks like a masc. Nom., perhaps of a proper name. If so, the following word might be the Gen. of the man’s father’s name.

I should like to read [*\*χ*] *restopator*, or whatever was good Eteocretan for *\*χρηστοπατωρ*, cf. *Εὐπάτωρ*, but the letter after *t* seems rather I or N than O.

If *-niator*, *-mator* or *-inator* be right we have some verbal Noun like *Victor*, *Salinator*, *domator*. Such forms are fairly common as names in Venetic; e.g. *Lemelot*, *Exctor* (Pauli *Veneter* No. 18 and 21); cf. also *Domator*, *Pletor* (*ib.* p. 261).

§ 33. It is time to consider the verbal forms in *t*, though in none of them can we be certain, on graphical grounds, that we have separated the whole word correctly. It is certain that one ends in *-gutat*; if we take *epimit* as another we get *-emet* as at least the ending of a third, *-ukalmit* and *agset* as those of a fourth and fifth (see §§ 27, 29 sup.), and *irereciet* as a sixth (§ 28). Finally *-animest* may either contain the Substantive Verb *est* or be compared with the Osc.-Umb. Fut. in *-est*. Then *epimit* might stand to *animest* as Osc. *sakruvit* to Osc. *sakrvist*, Lat. *redimit* to Osc. *pert-emest*. These are tottering erections, but they seem to

<sup>1</sup> In Venetic it forms many derivative proper names, *Ermon-*, *Molon-* etc. Further north it is common; *Teutones* is of course a derivative of I.-Eu. *textū* Osc. *torvō* etc. “civitas.” So Gallic *Redones* ‘the charioteer-folk’ (Glück, *Kelt. Namen bei Caesar*, p. 148). Pauli (*Ven.* p. 350) quotes also as Gallic the form *Vennones* beside *Vennum*, which would be a closer parallel, but he does not state where he found it, and I have not yet discovered the source.

support one another a little; (-)agset does look very much like a thematic Future or Conjunctive *ᾶξει* or *\*ᾶξη*, *faxit*, Sanskr. *nī-ṣṇat(i)*, whether it be taken as a complete word or not.

(i) But the difference between the *x* of *barxe* and the *-gs-* of this form combines with the *-phi-* of *adopte*, and *-phi-* of *-oφsano*, if, as we have conjectured, they stand for earlier *-pt-*, *-ps-*, to suggest that we had better not regard the *-gs-* as original (since by analogy we should expect orig. *-gs-* to become something like *-xs-* or *-hs-*, which might be denoted by  $\Xi$ ) ; but rather as arising from a contraction ; that is we shall take *-agset* for an earlier *-ageset*. Precisely the same syncope (of an unaccented syllable) is a marked feature of Osco-Umbrian (e.g. Osc. *factud*=Lat. *facto*) and of Venetic<sup>1</sup> (e.g. the name *Ermon-* derived from a stem *er̄tmo-*,<sup>2</sup> Pauli *Veneter* p. 306, *Kāstko-* beside *Casticins*, ib. p. 321). Hence if we count *-agset* a Verb, we shall compare its tense-stem rather with that of Lat. *tul-er-o* Gr. *βαλ-έω* for *\*βαλ-εσ-ω*. The Italic forms like Osc. *-animest* contain the same *-es-*. The difference between these with Eteoer. *-animest* on the one hand and *-agset* on the other would suggest that in this we have a long vowel in the termination, *-agſiṭ*, a Conjunctive like Old Lat. *forēt*, Osc. *fusid* (where *i* has come from *ē*). But if *animest* were read *-anim est*, so that *est*=Lat. *est* a non-thematic form, then the last syllable of *-agset* might be short.

(ii) Observe however that if we choose to regard *barxe* and *steþe* as Finite Verbs (? 3rd sing. of an unaugmented Aor. ?), we can only reconcile their ending with the forms in *-t* by assuming that it has lost the orig. *-t* or *-d* of Secondary Tenses and that the forms in *-t* if they are Singular, all belong to Primary Tenses. Rather than tie our hands so far, should we regard *barxe* as an Infinitive-instrumental? And *adopte* as a Noun in the same case '(ad)optione, *ἐκάπτι*, *uolens*'? And *irere* likewise?<sup>3</sup>

(iii) It is an obvious conjecture to see in Eteoer. *b* the representative of an orig. *γ* and connect *barxe*<sup>4</sup> with Gr. *Φέργον*, *Φεργάζεσθαι*, *Φέργειν* (if that be from the same root) ; the meaning would be 'fecit' or 'facere'.

(iv) [*e*]pikalmit or [*a*]nkalmi<sup>t</sup> might mean 'sets upon a column.' If so, the following *-ke* at the end of the line may well=Lat. *que* Gr. *τε*. This implies a serious phonetic assumption, on which see § 35. It also implies that *os* is a separate word.

(v) It is natural to connect *-emet* and *epimit* with Lat. (and Oscan) *emo*, 'I take' ; but if the first word left to us in the *nomos-* insec. ends at *-onades*, not *-onadesi*, we must read the next as

<sup>1</sup> This statement so far as it concerns Accent in Venetic, I cannot fully justify here. Apart from its *a priori* probability, it rests upon what I regard as the direct evidence of the punets which appear in the middle of words in Venetic script. These Pauli (pp. 191-213) has failed to interpret, but it is clear to me that they denote the word accent; e.g. in *zona-s-to* (=Gr. *\*έ-δω-νήστερο*, cf. Lat. *donāret*) the accent is on the second syllable. Accent is denoted in a similar way, by a mark before and a mark after the accented sounds, in the Pada-text of the Rig-Veda. The commonest practice in Venetic seems to be to place a dot on either side of the last consonant of the accented syllable ; but until the text of the Venetic insec. is put upon a sounder basis (a task I hope to attempt) the theory cannot be properly tested.

<sup>2</sup> Spelt *er̄iim o-*, where the *ii-* denotes the same 'open -i-' as in the common terminations *-iia* *-iies* (cf. the Latin spelling *filea*) where the second *-i-* originally denoted merely the 'glide'-consonant (-i-) between the vowel *-i-* and the next vowel. But it was from this, I now believe, that the symbol || came to be used for *e* over a large part of Italy ; see *Ital. Dial.* ii. p. 467.

<sup>3</sup> If there were more traces of religious formulae in the insec. one would guess that *irere irerei* was part of a prayer 'auctu augeatur' (or 'augeantur') or the like ; cf. 'with blessing I will bless thee' etc.

<sup>4</sup> It is well to observe that Gr. *ἀρχω* Skt. *arhati* has lost no initial sound.

*iemet*, which reminds one of Skt. *yamati* (he controls), connected with Gr. ηνία for γέμια. From either of these *epinit* might be a compound; in the second case we should suppose the *i* before the *m* to be long. The meaning of the simple verb might differ from the compound in some such way as ‘buys and holds,’ ‘controls and occupies.’ (If *arala* in the next line is a separate word, one is tempted to see in it a derivative of *ara-(re)* meaning ‘arable lands’; the suffix *-lo-* has a quasi-participial force in Italic, e.g. in Lat. *pendulus*, *bibulus*.)

(vi) But then what are we to do with *spha*? Is it akin to Gr. σφε, the object of *epinit* and the Antecedent of some Relative which was the object of the preceding *-emēt*? Or shall we take a wilder leap and identify it (*ignotum cum ignotoru*) with the mysterious σφα on the more or less Oscan insc. of Anzi (*Ital. Dial.* 22), where, if it is a complete word, it must mean “and” or “or.” The Zend *aspha*=Sansk. *aśva-* would lend us a decent pretext for supposing a change of *-sv-* to *-sp-* and the I.-Eu. Adv. \**suā* (=Germ. and Eng. *so*) might easily have come to have that meaning (which indeed *so*, and the Adv. *similarly*, often approach in English), cf. Lat. *item*; the change of meaning in Lat. *et* beside Gr. ἐτι, Skt. *ati* is not very dissimilar.

(vii) The second *r* in *-arkrkokle-* is syllabic whether it ends a word or not. If the former hypothesis were rendered likely by any fresh evidence, *Meumarkr* would suggest the Greek compounds of *-ἀρκης* (*ποδαρκῆς*) and in its suffix Lat. *-acer*, N. Osc. *-pacr* ‘propitius.’ It might be a name like *Strongbow*, *Greathurst*.

§ 34. There are one or two more forms whose fate in our eyes, on the I.-Eu. hypothesis, depends upon the view we take of the Eteocretan treatment of final *-m*, and of orig. *-ō*. Did *-m* remain as in Sanskrit, Zend and Italic? Or did it become *-n*, as in Greek and Venetic and Phrygian?<sup>1</sup> Did *-ō-* remain or become *-ū-* as in Osc.-Umb., Venetic, Boeotian, and Thessalian?<sup>2</sup> With this is more or less connected the vitally important questions of the treatment of the Velars and Palatals, and of the Aspirates. On all these points, unhappily, there is little that can be called evidence, save perhaps as to final *-m* and the Palatals.

(i) Having recognised a Parte. Fem. in *-tsa*, it is tempting to see in *asegun Anait*, or *segun Anait* the Parte. Masc. of a Verb, simple or compound, =Gr. σέβων (Sansk. *traj-*, I.-Eu. *tig-*), as is commonly assumed; the “root” in any case ending in velar *g*). But it is impossible to be certain that *Anait* is a separate word, and of course one would not expect to find the name with no suffix. The Greek form (in literature) is Ἀνάιτις. But a foreign deity may dispense with terminations (cf. the Arabian *'Alīlāt* in Herodotus I. 131) especially if he or she be only newly introduced; what Case shall we assign to Lat. *Pol*, *castor*, *hercūlē*?

(ii) Is *steſe* a form ending like *barxe* and *irere*, and *siamun* a place or river connected with the Promontory Σαμώνιον, which seems a derivative from a stem σαμων- (? earlier Eteocr. *siamōn-*)?

(iii) Then we may separate *epalun* from the following *gutal* and boldly identify *alun* with Gr. θλων, representing an earlier *alōm*. If we took further any one of various obvious guesses

<sup>1</sup> See e.g. Pauli, *Veneter*, p. 403. For *ō*→*ū* see *ib.* p. 401. For the Phrygian insc. see Ramsay, *Journ. R. Asiatic Soc.* 1883 (xv) p. 128 ff.; and Kuhn's *Ztschr.* 1887 (xxviii) p. 387 ff. Final *-m* does not occur and forms like *kakouν*, *mataran* are unmistakeable Accusatives.

<sup>2</sup> And almost certainly Phrygian, where *ov* (*ετρού* ‘Ἐτρω’ γλουρος ‘gold’ = χλωρός) seems to correspond to Greek *ω*; cf. Kretschmer p. 224.

which would give a meaning of “gives to taste, gives tithe of” (*γεύ-(σ)-ω*, Lat. *gu-s-tus, gustare*), “drops, pours, offers” (Lat. *gutta*, or Lat. *fundo futilis*, Gr. *χεῦ-σαι*), or even “dedicates, vows” (Lat. *uocare, uotare*) we could extract a somewhat indifferent sense “[whatever she] shall recover,” (or “[whatever the land] shall give back), [the city] vows in addition to other things,” giving *op* with the Gen. in Eteocretan the meaning it has with the Dat. in Greek. This last assumption might pass in view of the capricious way in which the I.-Eu. Prepsns. choose different cases in the same meaning in closely related dialects (e.g. Osc. *op eizoīs* “before their court” closely = Lat. *ob illos* and still more closely = Gr. *ἐπ' ἐκείνων* “before their eyes, in their time”). But the rest of this guess work would plunge us into phonetic toils which at least we must set clearly before us, so that if they are mere snares, they may be cut as soon as ever sufficiently decisive evidence is found.

§ 35. If I.-Eu. *-m* became *-n* in Eteocretan we shall resist temptation to equate *desiem*, in l. 1 with Lat. *decem*. And we shall not be sorely tempted, because *-askes-* in l. 11, however many bits of words it may contain, combined with *-agset* and the very frequent *k* of the *barre-* fragment (which can hardly be all = I.-Eu. *q*), to render it unlikely that *k* was palatalised. In other words such evidence as there is inclines us to exclude Eteocretan from the *satem*-group of languages. Venetic is similarly excluded, by a multitude of words beginning with or containing *k* (or *c* in Lat. alphabet), e.g. *katus, katakno, Turkna*, though its congener Illyrian had palatalised *k* by the 16th century A.D. (Brugmann *Grundriss* II § 623). Kretschmer (*Einl. in d. Gesch. d. Griech. Spr.* p. 266 ff.) comes to the same conclusion as to Venetic, though he mentions only a small part of the evidence. And we are still left to ask, after all that has been written on the question,<sup>1</sup> whether there is any reason for not counting Phrygian also a *centum*-language. Into this lively controversy I am not prepared to enter until more ample evidence is found. But I am bound to make two negative remarks: there is no substantial ground for asserting that I.-Eu. *ķ* became palatalised in Phrygian under any circumstances; and, if it did, no satisfactory explanation of Phryg. *ἀδδακετ* (which = Lat. *ad + facit*, (cf. Gr. *-θηκ-*) seems to me to have yet been offered.

If *-v-* before a consonant became *-ū-* in Eteocretan we must either suppose the change took

<sup>1</sup> See Kretschmer *op. cit.* p. 230 and the multitude of divergent writings he cites. He himself quotes as many exceptions to, as examples of, his own view. The solitary example alleged of Phryg. *s* = I.-Eu. *k* is the Pronoun (dat.) *σεμον(ν)* ‘τούτῳ’ which is equated with the O. C. Sl. dat. *semu* ‘τούτῳ,’ and taken to come from I.-Eu. \**ķi-*. Both forms contain the pronominal affix *-smo-*, but the Phrygian *σε-* (fem. *σα* ‘ταύτῃ’) may, in the present state of our knowledge, just as well contain I.-Eu. *ki-*, *khī-*, *siō-* or *tī-*, or even *so-* (like Lat. *ipsum* and Osc. *ekso-*) as I.-Eu. *ki-*; all these pronominal roots occur in different languages (Brugmann, *Grundriss* II. § 409). Even in the second syllable the identity of the Phryg. and O. C. Sl. forms is not certain, see Solmsen, *Kuhn's Zeitschr.* 34 (1897) p. 50 (he accepts the current view of the first syllable).

place after the loss of final *-d*, or regard *φraiso* and *Sardoφsano* as Genitives, or else, which seems simpler, we may suppose that the change took place only before (final?) *-m* or *-n*; in Latin it took place before final *-m*, or *-n-* followed by certain Consonants (e.g. Gen. Pl. *-ñm*, and *homīñculus*, etc.)

As to the various equations I have conjectured for *gutat*, now that we are moderately happy about the palatals, the first may be maintained at no more cost than supposing a derivative of the root *geus-* without the "Determinative" *-s-*; and that is really a very slight cost indeed. Into the phonetic assumptions involved in the others I am not prepared to drag the reader until I see some independent reason for thinking any one of them probable.

§ 36. If we were right in treating the *g* of *segun* as representing an original Velar *g* before an orig. *ō*, and the *ke* after *nkalmi*t as *-que*, this would mean that in Eteocretan the Velars were not labialised. Now in a *centum-* language this conclusion would have a novel and most startling importance. It would place the language in this respect on a more primitive stratum of I.-Eu. speech than any language yet known. For such a conclusion it would be foolish to think that we had at present adequate evidence. Further inscc. may prove that Eteocretan belongs to the *satem-* group by giving us examples of I.-Eu. *k* changed into a sibilant. At present we have not succeeded in identifying any such cases, and the other phonetic characteristics we have noted show European rather than Asiatic affinities.

There is however one curious circumstance to increase the eagerness with which we look forward to further discovery. Precisely the same doubt hangs over the treatment of the I.-Eu. gutturals elsewhere. In Phrygian, Velars were certainly unlabialised (e.g. Γέρμην 'Hot-well,' parallel to Gr. θέρμαι, I.-Eu. \**g̥hermā-*)<sup>1</sup> and as we have seen it is not yet proved that the Palatal *k̥* did not remain an explosive. And there is another scantily recorded language in which the preservation of Velars unlabialised and Palatals unpalatalised side by side, must, I believe, be recognised as far the most probable explanation of even the evidence which we at present possess. This is Venetic. We have seen already that orig. *k̥* is preserved in Venetic with no trace of palatalisation. But I have made a special search through all the records<sup>2</sup> of the dialect and

<sup>1</sup> Kretschmer *op. cit.* p. 231. There is no doubt that I.-Eu. palatal *-g̥h-* became a spirant, but so it did in some of the *centum* languages.

<sup>2</sup> Very fully collected in Pauli's *Veneter*; they include over 300 inscc. in the Venetic alphabet (which we may note has no *q*), about a score of glosses and place-names, some 200 Personal names, with another 400 or 500 from Pannonia and Illyria where a speech akin to Venetic was certainly spoken.

found no trace of any Indo-European *q* becoming either *qu* (or *kv*) or *p*<sup>1</sup>; but, on the other hand, some positive evidence to show that the Velars were treated in Venetic as simple gutturals.

The Venetic name *Eco* side by side with the Gallic *Eppo* (in the Roman colony Aquileia, *C.I.L.* iii. 3796, the latter person is described as *Boius*, *ib.* 3816), both derivatives of the word which in Latin is *equos*.<sup>2</sup> And the Venetic names *Xalχna* (*i.e.* *Galgna*<sup>3</sup>) and *Galgestes* have been attractively connected by Kretschmer (*op. cit.* p. 267) with Lith. *žalga* ‘pole’ Goth. *gulga* (Eng. *gallows*), a natural nickname for a tall person (the cognomen *Galba* looks like a Gallic form of the same). If this derivation be correct we have Ven. *galg-* = I.-Eu. *għalġx-*, a Velar aspirate becoming simply *-g-*, not *-gu-* nor *-v-*.

None of the forms that occur have reminded us of the distinction between the ‘Pure Velars’ and ‘Labiovelars,’ now generally recognised (see Brugmann, *Grundriss* I<sup>2</sup> § 630 ff.). But it is a tiresome factor in the problem which makes it unwise to accept any conclusions as to the treatment of the gutturals in a particular language until they are based on a fairly solid number of examples. But Lat. *que* Gr. *σέβεω* of course contain Labiovelars, not ‘Pure Velars.’

It is quite pitiable to have to depend on so much merely negative evidence in a point of such interest. *A priori* it is likely enough that there should be a middle neutral zone, between the Labialising and Palatalising groups, and until it is clear that Venetic and Eteocretan do not represent such a zone—though any day may bring such evidence as to Eteocretan—their scanty remains will be the centre of peculiar and affectionate interest to all students of the Indo-European languages.

§ 37. It will be convenient to gather together in tabular form the chief (and more certain) phonetic and morphological characteristics of Eteocretan, and to compare it in these respects with the languages which it appears to resemble most. In considering the table, however, it will be prudent to bear in mind that further discovery may enable us to add many more items to our first column, and that in such additional points the relation of Eteocretan to the other languages may wear a very different appearance.

<sup>1</sup> There are two apparent exceptions of the kind which prove the rule; *Liquentia* the river and emporium of the Latin Colony Concordia; *Quasauna* *C.I.L.* v. 3463, with a characteristic Gallic suffix, the wife of a man from Aesium, in the *ager Gallicus*.

<sup>2</sup> Of course this contains I.-Eu. *-ku-*, not I.-Eu. *q*. But if Venetic delabialised a full *-u-*, it must surely have corrected the tendency of *q* to become *qu*.

<sup>3</sup> *x* denotes *g* or something like it; *e.g.* Ven. *Exetor* gives a derivative *Egtoreus* in Latin alphabet. There are no signs for the Mediae in the Ven. alphabet; *Reius* is written *ϕehiros*.

EPEOCRETAN	GREEK	PHRYGIAN	VENETIC	OSCAN	LATIN
1 Preservation of five I.-Eu. vowels	Yes	Yes	Yes	Yes	Yes
2 <i>ai</i> , <i>oi</i> preserved	Yes	Yes	Yes	Yes	Yes (in part)
3 Change of <i>ei</i> ?	In part (to <i>e</i> )	No?	Yes	No	Yes (to <i>i</i> )
4 Change of <i>ən</i> to <i>ən</i>	Yes, in Aeolic	Yes	Yes	Yes	Conditionally
5 Preservation of <i>s</i> between vowels	No	Yes?	Yes	Yes	No
6 Change of <i>p</i> (and <i>k?</i> ) to spirants before <i>t</i> and <i>s</i>	No	No ( <i>Favaktei</i> )	Yes <sup>1</sup>	Yes <sup>1</sup>	No
7 Final <i>-t</i> but final <i>-st</i>	No	Yes	?	Yes	Yes
	No	No ( <i>egaei</i> )	Yes	Yes	Yes
8 Diphthong <i>eu</i> ?	Yes	?	Yes, (Illyrian, <i>Breuci</i> )	No	No
9 Change of <i>-m</i> to <i>-n</i>	Yes	Yes	Yes	No	No
10 Velars unlabialised?	No	Yes	Yes	No	No
11 Palatals preserved as explosives?	Yes	?	Yes	Yes	Yes
12 Fem.-Partc. in <i>-tsa</i> ?	Partc. in <i>-(v)σα</i>	Adj. in <i>-ssa</i>	Yes	No	No

§ 38. If the steps<sup>2</sup> which led us to think the endings in *σμίνθος*, *λαβύρινθος*, etc., to be Phrygo-Cretan be confirmed, few conclusions could be more important ethnologically. The origin of the old stratum of Greek names in *-νθος*<sup>3</sup> has been long a riddle; Kretschmer concluded that they belonged to the 'Urbevölkerung' of the Peloponnese: but that this was non-Indo-European. For the second of these inferences I have never been able to see any ground; but the first is clear, and Kretschmer's (*Einl. in d. Gesch. d. Griech. Spr.* p. 402) collection of the forms is most valuable. Have we not here fair evidence that the pre-Achaean language of the Peloponnese, not to say the Aegean, had at least one feature in common with that spoken round Praesos? Kretschmer cites names with this ending, or the kindred *-ανθος*, *-ονθος*, or the corresponding feminines, from

<sup>1</sup> Some possible limitations have been mentioned above.

<sup>2</sup> §§ 22 and 31 (f.). Briefly they are: *σμωρ*, *σμίνθος*, (*Σμιστων*), — *Chrysa*, *Σμινθεύς Χρύση*, — *λαβύρινθος* 'Praebīnθos', — *Ιδα* Πέργαμον, — *Κίσαμος*.

<sup>3</sup> Words containing the root of *ἄνθος*, Skt. *anahas*, must of course be put on one side.

the Peloponnese,—Κόρινθος (cf. Τίρυνθ-), and others in the Aegean (Λέβινθος, Πρεπέσινθος—where note the intervocalic -σ-), in Euboea, Attica, Aetolia (Αράκυνθος, and add the island Ζάκυνθος); and in several names in Thrace—which is significant in view of the close connexions between Thracian and Phrygian. He compares further the -unt- of the Illyrian *Salluntini*, the Messapian *Sallentini* with the Agraean king Σαλύνθιος (Thuc. 3. 111. 114; 4. 77); and the Bruttian Κόκυνθος.<sup>1</sup> Now Messapian and Illyrian are clearly related to Venetic, a language to which we have found certain resemblances in Eteocretan.

But Kretschmer's evidence is more than merely geographic. The collection which he has made of Greek words showing these -νθ- suffixes bears a very clearly marked, and highly significant character. They are all earthy of the soil; they represent exactly the type of words which come into language from the speech of the countryman, *ascriptus glebae*. Just as the Romans called the cow by a Volscian word (*bos*), and the dung-heap by a Sabine word (*oleatum*),<sup>2</sup> so did the Achaeans learn from their Mycenaean servants and tenants the names for βόλυνθος 'dung,' πείρινθ- 'the basket-car of the wagon,' κήρινθος 'bee-bread,' ὄλυνθος 'unripe fig,'—whence Philip's victims the Thracian Olynthians were named—ἔλμινθ- 'intestinal worm,' ἐρέβινθος, λέβινθος common kinds of pea, ἀσάμινθος<sup>3</sup> 'bath-tub,'—very different from an Athenian βαλανεῖον,—τερέβινθος, 'the (southern)<sup>4</sup> turpentine-tree,' ἀψίνθιον 'wormwood,' κορυνθεύς 'κόφινος, κάλαθος, ἀλεκτρύων' (Hesych.), κόρυνθος 'μάζης ψωμός' (*id.*), αἴγυνθος a bird, and finally the Epic adverb μίννυθα,—just the kind of colloquial particle to find its way into a competing language, like the colloquial Saxon *bit* beside the polite Norman French *morsel*, both meaning exactly the same, 'a bitten fragment,' or, as the Mycenaeans<sup>5</sup> called it, κόρυνθος (no doubt from κείρω, 'I cut'). Σμίνθος 'mouse' belongs to the same category,<sup>6</sup> and ίάκινθος 'the flower of spring' must go with them. Finally, I am bound to point out that Kretschmer's

<sup>1</sup> On Iapygians, Bruttians and Pelasgians see *Ital. Dial.* 25 A. Rem. p. 15.

<sup>2</sup> See *Ital. Dial.* pp. 359 ff.

<sup>3</sup> Note here again the -σ- between vowels.

<sup>4</sup> 'Pistacia Terebinthus, a Mediterranean tree, yields by incision the Chio or Cyprus turpentine.' Le Maout et Decaisne, *General System of Botany* [Trans. Hooker] s.v. *Terebinthaceæ*, a reference I owe to my colleague Mr. H. Spencer Harrison, D.Sc.

<sup>5</sup> I use this term rather than Pelasgian only because the Pelasgian question is strictly irrelevant to the matters discussed in this article.

<sup>6</sup> If it is an I.-Eu. word the root might be that of Gr. σμάδω, Eng. *smear* (*smaɪ̯-* or *smeɪ̯-*).

proof (*op. cit.* 293 ff.) of the identity of the Greek *-νθ-* with the *-νδ-* of place names in Caria and Asia Minor generally ('Αλάβανδα, and the Carian Λαβραῦνδος), lends further importance to our present hypothesis.<sup>1</sup> The transcription of the fragments of Carian preserved is too uncertain to help us; but Georg Meyer's long collection of the Carian place-names (*Bezz. Beitr.* x. p. 157), appears to me, as to Meyer himself, (though not to Kretschmer, p. 377), to be perfectly consistent with the ascription of the language to the Indo-European group.<sup>2</sup>

It is clearly impossible to examine here the wide deductions suggested by the coincidences we have noticed. But our efforts to discover further monuments of the Eteocretan language will at least be quickened by the hope that with such discovery may come a fuller answer to two interesting questions, Was an Indo-European language spoken in Asia Minor and in the Mediterranean basin in the Minoan age? And if so, were its speakers the race that developed the civilisation enshrined for us in the monuments of Mycenae?

R. S. CONWAY.

CARDIFF, Jan. 9, 1903.

<sup>1</sup> The name Σμινθυρίδης, which must be connected with Σμινθεύς, occurs at the Achaean colony Sybaris, Herodt. 6. 127.

<sup>2</sup> The only group of sounds which could be cited as non-Indo-European is initial *kb-*, which is fairly frequent, e.g. in Κβονδίαστος. But the combination is not merely non-Indo-European but non-human, i.e. utterly unpronounceable, unless either a vowel is understood after (or before) the *k*, or, which is clearly the right alternative, the *b* be taken to denote here, as it does in so many other places, nothing more solid than a consonantal *γ*, or the spirant *v*. I know nothing about Lycian; but so far as Kretschmer's arguments as to this language rest on the groups *kb-*, *tb-*, they are certainly misleading.

## KEFTIU AND THE PEOPLES OF THE SEA.

### I.—EARLY RELATIONS BETWEEN EGYPT AND GREECE.

IT may well be that in the idea of Herodotus and his contemporaries, that the gods of Greece came originally from Egypt, there lies a consciousness of a fact, and that there was latent in the Greek mind a vague idea that their civilization had, far back in the mists of time, come into contact with that of Egypt, and even that some of its characteristics were of Egyptian origin. Leaving out of account the question of the possible African origin of ‘Mycenaean’ culture, and so ultimately of much of the civilization which we know as ‘Greek,’ we can now say with certainty that we know that Greek culture had, a thousand years before Herodotus, been brought into contact with the already three thousand year old civilization of Egypt, and that this contact was a comparatively close one, and one which cannot fail to have resulted in a perceptible modification of the less-developed and younger culture. We now know that this contact was closest in the sixteenth and fifteenth centuries B.C., when the kings of the XVIIIth Dynasty reigned over Egypt.<sup>1</sup>

As to the routes by which this connection was first established and afterwards carried on, opinions may differ. I have myself expressed

<sup>1</sup> The date of the XVIIIth Dynasty has finally been proved by Dr. Budge in a concise and convincing argument on pp. 153–156 of the first volume of his new *History of Egypt*: Amenophis III. began to reign not later than 1450, and Amenophis IV. (Khu-en-Åten or Åku-n-Åten) ceased to reign not later than 1400 B.C. These dates are based, not on mere calculations of the reigns of Egyptian kings, but on a synchronism with Assyrian and Babylonian kings whose dates are known from the cuneiform records, and, further, this Babylonian evidence agrees in every point with the Egyptian evidence on the subject.

certain views on the subject which have been the subject of some criticism, but I confess that although I see that I unduly minimized the possibility of direct communication between Greece (*sc.* Crete) and Egypt at this period, yet I am not prepared to wholly abandon my view that the long and circuitous route *via* Cyprus and the Palestinian coast was that originally taken and afterwards more or less maintained. We know that the fleet of the confederated Mediterranean tribes which attacked Egypt in the reign of Rameses III. (*circa* 1200 B.C.) actually did take the longer route and was defeated off the Palestinian coast. Similarly, the expedition of the Athenians took the longer route to Sicily. A large fleet, encumbered with convoy, might well in both cases take the longer way when single ships would directly cross the open sea, but the probability remains that the longer and safer route was the original one by which connection was first established, and that it was not until the approximate position of either Egypt or Sicily was well known that the direct route could be first dared, then used with certainty of arriving at the goal.

I have assumed that these Mediterranean confederates of Rameses III.'s time came from Greece, or thereabouts. The correct determination of who these 'Peoples of the Sea' and their predecessors, the men of *Keftiu* and the *Ha-nebu*, were and where they came from, is so important a matter that it would seem advisable to put together anew some notes upon the subject which may tend to make the connection of these 'Peoples of the Sea' with matters Mycenaean clearer to those who are still doubtful on the point.

The Egyptian monuments of the sixteenth to the twelfth centuries B.C. chronicle relations which existed during the period contemporary with the Mycenaean Age in Greece between the Egyptians and various peoples of the Mediterranean, who are distinguished from the Semites of Palestine and Syria. Non-Semites of the Eastern Mediterranean who came into close contact with Egypt during the period when Mycenaean wares were regularly exported thither come very near being Mycenaeans themselves. And as a matter of fact we find some of them actually depicted by the Egyptians as wearing Mycenaean costume and bringing Mycenaean vases with them to Egypt as gifts to Pharaoh.

## II.—THE HA-NEBU.

A constantly recurring general appellation for the inhabitants of the 'Lands of the Very Green Sea' under the New Kingdom was  *Ha-nebu*, a corrupt phrase which at least as early as the XVII<sup>th</sup> Dynasty meant to the Egyptians 'All the Northerners,' and when, as was sometimes the case, the word  *Meht*, meaning 'North,' was substituted for *Ha*,  the meaning could no longer be doubtful to any reader. From this time onwards the phrase meant 'All the Northerners,' and in Saite and Ptolemaic days this meant definitely Greeks, and nothing but Greeks. The word "Ελληνες is translated  in Ptolemaic inscriptions, and in the sixth century inscription recording the battle of Momemphis (Hdt. ii. 163, 169) the Ionian auxiliaries of Amasis are called *Hau-nebu*.<sup>1</sup>

Mr. W. M. Müller has made an investigation into the origin and history of the word,<sup>2</sup> which I have supplemented with some additional matter.<sup>3</sup> It appears that although under the XVIII<sup>th</sup> Dynasty the word meant 'All the Northerners,' and referred to the Mediterraneans, its original signification was something quite different, for the original form of the name was simply *Haāu*, which means 'Fenmen' of the Delta, those who dwelt in the papyrus-swamps of the North, foreigners to whom it was expressly forbidden to communicate any of the magical protective formulæ of the Book of the Dead, thus definitely marking them off as outside the pale. Originally then the *Ha-nebu* were neither Greeks nor Northern Mediterraneans of any kind.

But the corrupt form  is found as early as the VI<sup>th</sup> Dynasty. Whether this was already read *Ha-nebu*, and meant 'All the Northerners,' or retained the proper value *Haāu*, 'Fenmen,' is uncertain : I think the latter was probably the case, and that at this period the word meant no more than the Delta-people, so that when Pepi I. is described in his 'Pyramid-Texts' as 'circling in the circle of the ' this was read *Haāu*, and the idea

<sup>1</sup> Daressy, *Recueil*, xxii. ; *Oldest Civilization*, p. 323.

<sup>2</sup> *Asien u. Europa*, p. 24 ff.

<sup>3</sup> *Oldest Civilization of Greece*, p. 159 f.

was that the ghost in the course of his peregrinations would wander among the barbarians of the swamps and sands of the Mediterranean coast. The 'circle' (*debn*) can, in the absence of convincing archaeological proof of any connection between Egypt and the Northerners at this early period,<sup>1</sup> hardly be taken to mean as yet the circling round of the land from Egypt *via* Palestine and Phoenicia to Asia Minor, though the name for the north Syrian coast, *Kedi* (*Kode*), certainly meant part of this in later times;<sup>2</sup> and under the XVIIIth Dynasty the basin of the Eastern Mediterranean, the north-western world of the Egyptians, going *via* Syria to Asia Minor and Crete and so back by Libya, was known as the 'Great Ring,' *shen uer*.<sup>3</sup>

We thus find no certain reference to the populations of Asia Minor and Greece under the Old Kingdom. But under the Middle Kingdom, though the original meaning was 'Delta-people,' it is probable, seeing that some kind of connection between Crete and Egypt seems to have been already established, that the word *Ha-nebu* had now begun to acquire the meaning which it certainly bore under the XVIIth Dynasty,—Northerners of Southern Asia Minor and Greece,—and that the 'Circle' had already been projected forward into the north-western lands.

At this period a certain idea of a supernatural character was attached to the *Ha-nebu*, for they are spoken of in poetical antithesis to mortal men. The conception bears some analogy to the Chinese idea of the *Fan-kwei* or 'Ocean Spirit,' nowadays generally translated as 'Foreign Devil.' The Egyptian idea of the *Ha-nebu* or *Meht-nebu* seems to have been almost equally uncomplimentary; and they are referred to in the Book of the Dead as raiders and spoilers, from whom the god Thoth was

<sup>1</sup> Prof. Petrie's discoveries of 'Aegean' pottery in tombs of the First Dynasty at Abydos still remain difficult to explain, since the evidence from Crete seems to point to a contemporaneity of the primitive 'Amorgian' period with the Egyptian Middle Kingdom.

<sup>2</sup> Müller thinks this word originally meant the 'Circle' of the Gulf of Issos (*op. cit.*, p. 248), and to judge from the way in which it is mentioned in the inscription of Rameses III. describing the march of the Pulesatha and their confederates against Egypt (v. *east*, p. 183) this seems very probable explanation.

<sup>3</sup> , so distinguished from the *pekker uer Naharen*, .

'Great Encircling Water of Mesopotamia,' i.e. the encircling waters of the Euphrates and Tigris

The of the sentence , quoted by Müller, *op. cit.*, p. 253, n. 3, must

be emended to , 'the Great Ring of the Great Green Sea,' for the waters of the Eastern Mediterranean do not encircle anything, as those of the Euphrates and Tigris do, but are enclosed in the Great Ring of Palestine, Asia Minor, Crete, and Libya.

prayed to deliver his worshippers, and the personification of *Rest*, Hेत्प, to grant respite.

Under the XVIIIth Dynasty the word , now certainly read *Ha-nebu*, and translated ‘All the Northerners,’ can no longer have meant the *Haāu* or Fenmen of the Delta, who had ceased to exist as a separate people,<sup>1</sup> but the nations of the Great Green Sea, the Mediterranean, in general, with the exception of the Palestinians and Syrians: the phrase was never used and never had been used to designate them. It might have been expected that with the disappearance of the swamp-people the corrupted name ‘All the Northerners’ would have been transferred to the Semites of Palestine, who had always typified the Northlanders for the Egyptians; but it is really quite natural that the mysterious Mediterranean tribes, already known under the Middle Kingdom as raiders of the Delta, should have succeeded to the name rather than the Semites, whose tribal appellations were well known. But, although the Mediterraneans were called *Ha-nebu*, and in the reign of Merenptah the sea-peoples are directly described as *Mehti*, ‘Northerners,’ yet the ‘Isles in the midst of the Great Green Sea,’ the ‘Ends of the Lands of the Great Circle,’ from which they and their congeners came, were always regarded by the Egyptians as belonging to the *West*, and the next people mentioned under the XVIIIth Dynasty as coming from the Isles was regarded as typical of the West just as the Semitic nations were regarded as typical of the North. Thus to the Egyptians these Mediterraneans were Northerners who came from the Isles of the West; *i.e.* their home lay north-west of Egypt. The name of this definitely Western people meets us for the first time under the XVIIIth Dynasty: the men of the land of *Keftiu*  or *Kefthiu* , a term used on the

<sup>1</sup> We have no proof of the existence under the New Empire of any inhabitants of the Delta other than the Egyptians themselves, some Semites in the direction of the Wadi Tūmilāt and the Isthmus (the Israelites, for example), and the Libyans, whose encroachments on the Delta had become very noticeable in Merenptah’s time. I am therefore unable to accept the theory, erroneously ascribed to me, by Mr. Cecil Torr (*Class. Rev.* xvi. p. 183), that ‘the name *Haunebu* . . . was always applied to the inhabitants of the Delta; so that, when the Hellenes settled in the Delta, the term came to be applied to them.’

<sup>2</sup> As it stands, this is the name of a *land*, not of a people. Prof. Maspero prefers to use the form *Keftiu* (*Kéfétiou*) for the people, the land being, according to him, properly *Kefti*. This may be so, and the derivation of an ethnic *Keftiu* from the land-name *Kefti* is very probable, but

monuments, sometimes interchangeably with *Ha-nebu*,<sup>1</sup> to represent the Peoples of the North-West, but in a less vague manner than *Ha-nebu*. It ceased, however, to be used as early as the time of the XIXth Dynasty; the word *Ha-nebu* survived it and was used in a more or less correct sense in the Saite and Ptolemaic periods, when *Keftiu* was revived in a way which shews us that its real meaning had been long forgotten.

The especial interest of the name *Keftiu* lies in the fact that whereas we have no representations of any *Ha-nebu*, the men of Keftiu are often represented by the Egyptians of the XVIIIth Dynasty, and, to judge from their appearance, costume, and tribute, they were not only Mycenaeans, but specifically Cretan Mycenaeans. The term *Keftiu* however probably included other Mycenaean lands besides Crete.

### III.—KEFTIU.

The word *Keftiu*, like *Ha-nebu*, is Egyptian, being the same as the expression *kefti*, signifying 'At the back of,' or 'Behind'; *i.e.* the land Keftiu was the 'Hinterland,' the 'Back of Beyond,' to the Egyptians. The lands of the Back of Beyond were assigned to the countries of the *shen uer*, the 'Great Ring' of the Eastern Mediterranean, already referred to. In the 'Hymn of Amen,' a poetical composition in honour of Thothmes III., we find the king given power to smite the peoples who dwell in

 *Keftiu(?)<sup>2</sup> tan shenenet, shenet uer*, 'the Keftius (*i.e.* Hinder Lands), the Lands of the Ring,<sup>3</sup> the Great Ring.' In the next sentence the antithesis to the Hinder Lands is given by the mention of the people of the Fore Lands, or countries immediately in front of Egypt, the *Heru-shau*, 'Those who are upon the Sands,' the Bedawin of the eastern frontier. So Keftiu lay in the extreme aphelion, so to speak, of the orbit of the peoples which revolved around the central sun

we have no instance of the form *Kefti* unless we read the sign  as *ti*, and not as *tiu*. Probably Prof. Maspero reads it *ti*: I, in consonance with an equally well-grounded opinion, read it *tiu*, and in presence of the variant spelling *Kefthiu*, which is as certainly that of the land and not of the people, I am inclined to retain the reading *Keftiu* for the land. The people may very well have been called 'Keftiu' also, but to avoid confusion, I have generally spoken of them as 'Keftians' or 'men of Keftiu.'

<sup>1</sup> E.g. in a list of the Nine Barbarian Nations (Brugsch, *Geographische Inschriften*, ii. p. 88).

<sup>2</sup> I propose to read here *keftiuu*, not the ordinary *p̄huu* (*v.* Brugsch, *Wörterbuch*, p. 1493).

<sup>3</sup> Determined by the sign 

of Egypt, in the remotest part of the Mediterranean Ring. South-western Asia Minor, Rhodes, and Crete are not indistinctly indicated, and the specific identification with the latter was proposed by Brugsch as long ago as 1858.<sup>1</sup>

Further, as has been said, the land of Keftiu is definitely assigned to the *West*. The ‘Hymn of Amen’ in another passage mentions Keftiu, phonetically spelt out this time as  , with *Asy*, a land to which we shall again refer, as ‘lands of the West.’ In the tombs of Puamrā (*temp.* Hatshepsut) and Rekhmārā (*temp.* Thothmes III.), at Thebes the typical nations of the four quarters of the world are depicted: first comes the East, represented by the Punite of Somaliland, then the South, represented by a negro, then the West, by the European-visaged Mycenaean-clothed man of Keftiu, finally the North, by a typical Semite.<sup>2</sup> We see the same arrangement in other Theban tombs of this period. Palestine, Phoenicia, and Syria, the lands of Tchahi (Zahi), Kedi, Kharu, Upper Rethnu and Lower Rethnu, Naharen, Amar, &c., the lands of the Semites, that is, were always typical of the North, and the Negroes of the South; Punt of the South-East could often do duty for the East, and either the Libyan of the South-West or the Mycenaean of the North-west could personify the West. There seems then no doubt as to the geographical position of Keftiu, which (1) = the isles of the Mediterranean, and (2) lay north-westward of Egypt, at the furthest end of the ‘Great Ring.’

There seems no doubt, but, unluckily, in Ptolemaic times *Keftiu* was used to translate the Greek word *Φοινίκη*: *i.e.* the Ptolemaic Egyptians thought *Keftiu* was Phoenicia. Hence the natural conclusion was drawn and generally maintained until a few years ago that the *Keftiu* of the XVIIIth Dynasty was also Phoenicia, and that the description of it as a Western land was a gross piece of carelessness on the part of Thothmes III.’s poet. But this theory always had great difficulties to contend with. (i) Why Phoenicia should be assigned to the West in the XVIIIth Dynasty tombs while the rest of the Semites were all regarded as repre-

<sup>1</sup> *Geographische Inschriften, loc. cit.*

<sup>2</sup> I am indebted for this information, as regards the tomb of Puamrā, to Mr. Percy Newberry, who was kind enough to allow me, during a stay at Thebes in the early part of last year, to make many notes of his tracings, &c., of the wall-paintings in the tombs, which I have, with his permission, used to supplement the results of my own examinations of the representations of the men of Keftiu and their belongings.

sentative of the North was never explained<sup>1</sup>: to get to Phoenicia, an Egyptian would go North-East. In the tombs of Puamrā, Rekhmārā, and others, where tribute is represented as being brought by representatives of the Quarters of the World, the Keftian is always carefully marked off as a separate and peculiar race of mankind, in no way related to the Semite, for instance, who represented the north, while, as has been said, the Keftian represented the west. (ii) The facial type of the Keftians, splendidly exemplified in the first three figures in the great procession of tribute-bearers in Rekhmārā's tomb and also in the earlier tomb of Puamrā, is not only non-Semitic, but is definitely European. Puamrā's man has a Roman nose and looks rather like an Italian; the second man in Rekhmārā's tomb is absolutely Italian in type, and has a remarkably strong, heavy-jawed, almost 'nut-cracker' face, evidently a portrait: the first man, the 'Great Chief of the Isles,' is fairer, with a prominent nose, and a remarkably small mouth: his expression is considerably milder than that of his lieutenant. The rest are more or less conventionalized types, strongly approaching the ideal Egyptian; the utter dissociation from anything even remotely resembling a Semitic type is thus, except in one or two instances, which will be noted below, carefully emphasized by the Egyptian artists, who evidently regarded the Keftians as being, as was also the case with the Punites, more like themselves than the Semites. (iii) In the tombs of Puamrā, Senmut, Rekhmārā, and Menkheperrāsenb (reigns of Hatshepsut and Thothmes III., B.C. 1600-1550), their costume is as definitely non-Semitic. They wear only waistcloths,

<sup>1</sup> Mr. Torr's attempt to explain away this by the supposition that when the Egyptians spoke of Keftiu and Asy as being in the West, the word 'West' need not here mean 'west' as a point of the compass, but may quite well mean 'the west country' in the sense in which that term is used in cuneiform inscriptions, namely, as a designation of the seaboard of Syria (*loc. cit.* p. 183) breaks up upon the fact of the pictures of the Keftians as representative of the Western point or the compass in the Theban tombs. But in any case his suggestion would have been impossible. The word *Amenti* means the western point of the compass, and was never used by the Egyptians as a designation for Syria as a translation of the Sumerian group *MAR-TU*, 'the West,' which a Babylonian, pronouncing it Abarru, naturally used for Syria. Had it ever been used in so confusing and absurd a way, we should find the lands of Tchahi, Rethnu, &c., spoken of as in 'the West'; but we find no instance of this. I do not, as Mr. Torr says, imply that the Babylonian term was known to the Egyptians (generally): no doubt it was known to those who could read or write cuneiform, but to nobody else. The word *Amar*, used by the Egyptians as a designation for part of Syria, is probably a native name (the land of the *Amorites*), identical with a name for part of Syria, *Amurru*, which, since the syllable *mur* is written with the same sign as the syllable *har*, was used by the Babylonians in the fifteenth century B.C. to designate the country known usually as *Aharru*, 'the West,' the Sumerian group *MAR-TU*. Neither *Amar* nor *Amurru* meant 'the West' to either Egyptians or Babylonians; they meant nothing more than *Amar* and *Amurru*.

richly embroidered and coloured, often with spiral patterns, ending in a tasselled fringe, and twisted at the top round a thick belt, probably leatheren. They wear boots, also gaily ornamented, reaching to the calf of the leg, and their hair was apparently allowed to grow to its full natural length and hung behind in long tresses below the waist-belt, while in front it was twisted up into an elaborate arrangement of top-knots or curls, one man wearing a kind of pointed horn or *κέφας* at the side. Now it was evident from the first that these were very odd Phoenicians, for no Phoenician that we know of ever dressed himself like this. I think we know now who did, and that is the Greek Mycenaean. But the Mycenaean was unknown in the days of Wilkinson and Brugsch, and in view of the Ptolemaic identification these people with the glaringly un-Semitic costume and the glaringly un-Semitic faces and hair had to be regarded as veritable Phoenicians of Tyre and Sidon. They dressed differently then, was the only explanation. But why, when all the rest of the Semites dressed in their usual Semitic fashion in voluminous parti-coloured robes, with comparatively short, bushy hair, &c.?

With the discovery of the remains of the earlier civilization of Greece came the solution of the puzzle. It was seen that some of these Keftians brought as tribute objects of apparently Mycenaean origin; then the identity of their own general appearance with that of the Mycenaeans was shown. The conviction that the poet was right when he spoke of Keftiu and Asy as western lands, and that the Keftians were nothing else but Mycenaeans, grew apace: Steindorff (1892) and Müller (1893) rejected the Ptolemaic identification with the Phoenicians almost contemporaneously, but the latter erred from excess of caution when he placed Keftiu in Cilicia, a country with no known connection with 'Mycenaean' civilization, and hardly belonging to the West. Apparently Müller regarded the Keftiu not as themselves genuine Mycenaeans, but as mere handers on of Mycenaean objects received from the West. And this in face of their Mycenaean dress! In 1898, v. Bissing gave some of the reasons for the rejection of the identification with the Phoenicians, and accepted the Keftians as Mycenaeans<sup>1</sup>; in the next year he

<sup>1</sup> *Jahrb. Arch. Inst.* xiii. pp. 53-54:—(i) Except in the stereotyped Lists of Nations, the Keftiu only occur during the reign of Thothmes III.—with the Phoenicians, as is well enough known, the Egyptians had relations in later times as well; (ii) The Keftiu occur in none of the commemorative inscriptions or romances which deal with Phoenicia and Syria; (iii) The Keftiu are

announced that he had come to the conclusion that Keftiu included Crete in its signification.<sup>1</sup> This was a return to the opinion of Brugsch in 1858. The accuracy of Brugsch's conclusion was remarkably confirmed a year later, when the well-known fresco of the Cupbearer was discovered by Mr. Evans at Knossos; this man's appearance is the same as that of the XVIIIth Dynasty Keftians in the tomb of Rekhmára:—the same waist-cloth with the same belt and fringe, the same hair, the same dark-red complexion, the same boots, carrying the same kind of vase, and in the same attitude. The comparison between the Keftians and the men of the Vaphio cups was confirmed, and the conclusion that they were Mycenaeans was natural; a direct connection between Greece and Egypt c. 1550 B.C. seemed thus proved. But the objection has been raised<sup>2</sup> that the Cupbearer may not be a Cretan at all; that as well at Knossos as at Thebes he may be the representative of some nation intermediate between Greece and Egypt, which sent tribute to the Mycenaean dynasts of Crete as well as to the Egyptian Pharaoh, the said nation being presumably the impossible Phoenicians or Cilicians. The objector forgets that whereas the Keftiu were foreigners in Egypt, this Cupbearer is not a foreigner in Crete; he is as Mycenaean as the men of the Vaphio cups, whom both he and the Keftiu so much resemble, and, after all, the picture of a Mycenaean found in Crete is presumably that of a Cretan Mycenaean.<sup>3</sup>

I should be inclined to doubt, however, that Keftiu always = Crete and nothing but Crete. The fact that the word is Egyptian and has a connotation almost, though not quite, as vague as that of *Ha-nebu*, disposes me to think that the Egyptians of the XVIIIth Dynasty did not understand by the word any absolutely definite country such as Crete, but 'the Isles of the Great Green,' 'the Lands of the Great Ring,' in general, that is to say not only Crete, but the other Mycenaean lands behind it, the south-western coasts of Asia Minor, which no doubt seemed to the Egyptians a series of islands (much as the Antarctic continent is figured on our maps), and possibly even Cyprus, to which Mycenaean culture had apparently already penetrated from the West.

not mentioned in the Tell el-Amarna Letters, which are so well informed on all Syrian-Phoenician relations; (iv) Nothing in type or costume of the Keftiu indicates a Semitic origin' (*Transl.*).

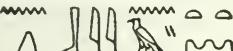
<sup>1</sup> *Ath. Mitth.* xxiii. p. 248, n. 2.

<sup>2</sup> Torr, *Class. Rev.* xvi. p. 184.

<sup>3</sup> That the men of the Vaphio cups, whose *coiffure* is in details the counterpart of that of the Keftians, were Cretans, seems, in view of the probability that these cups are really of Cretan workmanship, extremely likely.

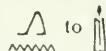
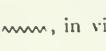
Cyprus certainly was well-known to the Egyptians at this time ; it had a name of its own—the full form of which I have restored—*Yantānay*,  ; this I take to be the same as the name of *Yatnan* or *Yatnana*, by which the Assyrians knew the island five hundred years later.<sup>1</sup> Another XVIIIth Dynasty foreign-land name, *Āsy*, already mentioned as used in connection with Keftiu to denote the lands of the West, was identified by the Ptolemaic archaeologists with Cyprus ; the identification may be correct ; if so, *Āsy* may have been really the name of part of the island only ; *Yantānay* certainly was the whole, as it is described in the Stele of Canopus (l. 9), in a passage obviously copied from some now destroyed tribute-list at Karnak, as ‘the island <Nebinaiti> (*read* *Yantinaiti*) which is in the midst of the Great Green Sea.’

The land of *Alashiya*, constantly mentioned by both Egyptians and Asiatics from the sixteenth to the eleven centuries B.C., has also been identified by Müller with Cyprus or part of it ;<sup>2</sup> his identification was based on the fact that *Alashiya* was, as is evident from the Tell el-Amarna letters (*temp. Amenhotep IV. ; c. 1430 B.C.*), a maritime country under an

<sup>1</sup> *Oldest Civilization of Greece*, p. 163. The word was only known in a mutilated form . . . . *ntanay* : the first syllable being unknown. I identified it with a Ptolemaic name for Cyprus , ‘*Nebinaiti*,’ which, as it stands, is corrupt and impossible ; it is a misreading of a hieratic original of the XVIIIth Dynasty, giving the true form 

for the mutilated word in the inscription of Thothmes III. (Lepsius, *Denkmäler*, iii. 30a, 18), which is obviously the same as the Assyrian name for Cyprus, *Yatnan* or *Yatnana*. Mr. Torr has misunderstood me on this point, and has also fallen into a serious error as to a matter of fact. He says (*Class. Rev.* xvi. p. 183), ‘the author says that *Asi* was “certainly part of Cyprus,” but he does not give any reasons for saying so. As a matter of fact, *Asi* was supposed to be Cyprus, because the Canopic decree of 238 B.C. was supposed to have a name like *Asi* in the hieroglyphic text to represent the name *Cyprus* in the Greek text. But on p. 163 the author has a long note, showing that the name in the hieroglyphic text has been misread and is not the least like *Asi*.’ But, as a matter of fact *Āsy* is not mentioned in the Canopic decree at all, and, further, in my note on p. 163, I never said that the name in the hieroglyphic text of the Canopic decree had been misread as ‘*Asi*.’ When I say ‘*Nebinaiti*,’ I do not mean ‘*Asi*.’

(In his article ‘Die Urheimat der Philister,’ in *Mitth. Vorderasiat. Ges.* 1900, p. 8, W. M. Müller suggests . This is possible, and gives practically the same result.

*Antānay*. But I prefer  to , in view of my identification of the XVIIIth Dynasty word with the Ptolemaic ‘*Nebinaiti*.’ This identification is not made by Müller, nor has he perceived the identity of ‘*Antānay* or *Yantānay* with the Assyrian *Yatnan*.)

<sup>2</sup> *Das Land Alasia : Zeits. für Assyriologie*, x. (1895) p. 257 ff.

independent king, which mined and exported copper to Egypt. But ivory was also exported to Egypt by the Alashiyans, and Cyprus was surely never a land of elephants! Müller's suggestion that this ivory came not from Mesopotamia, where as we know from both Assyrian and Egyptian records, the Indian elephant ranged at this time and for many centuries later, but from Libya, is improbable, to say the least of it. But in spite of the ivory export I hold with him that Alashiya must be Cyprus, because not only was copper exported thence, but was actually mined there: in a letter written in Babylonian, the usual diplomatic medium—the French, in fact—of the time, the king of Alashiya writes to the king of Egypt, apparently Amenhotep III., saying 'Brother, should the small amount of the copper [sent to thee] be displeasing to thy heart, [it is] because in my land the hand of Nergal my lord slew all the men of my land [*i.e.* they died of the plague], *and there was no working of copper*; and it was, my brother, not pleasing to thy heart. Thy messenger with my messenger swiftly will I send, and whatever amount of copper thou hast asked for, O my brother, I, even I, will send it thee.'<sup>1</sup> Now copper was apparently not mined in ancient times anywhere in the eastern Levant except in Cyprus, so that Alashiya must be Cyprus, and the ivory must have simply come from Mesopotamia to Egypt via Cyprus. We know from the finds in Cyprus that the Cypriote Mycenaeans, like the peoples of Asia Minor (*Iliad*, iv. 141), were greatly given to work in ivory. If, however, it can be proved that copper was ever mined anywhere on the Cilician coast, the Cyprian claim would be jeopardized, for the rest of the evidence points as much to the mainland as to Cyprus. The fact that the Alashiyans were raided by the Lukki or Lycians proves nothing as to their exact geographical position, and the Egyptian envoy Uenuāmen, who in the reign of the priest-king Herheru, four hundred years later, was driven by contrary winds from the Phoenician coast to Alashiya, may quite as well have been carried to Cilicia as Cyprus. And the fact that the Alashiyans used the Babylonian cuneiform script, like the rest of the mainlanders as far as the Taurus, points rather to a continental than an insular position; we have no proof that cuneiform ever gained any foothold in Cyprus, where at this period, a pictographic script possibly analogous to the Cretan, seems

<sup>1</sup> "Ahī, ki sihēr erū ina libbi-ka lá išakīn, šumma ina māti-ya kāti Nergal beli-ya gabba amelūti ša māti-ya idūk, *u ebis eri yanu*; u, ahī-ya, ina libbi-ka lá šakīn. Maršipri-ka itti maršipri-ya arḥīš ūṣṣir, u minūmme erī ša teriššu, ahī-ya, u anaku ultebilāk-ku." (Budge and Bezold, p. xxxvi.)

to have been in use. Further, there is the question of the ivory. But at present Cyprus has the best claim to be Alashiya.

Müller's identification of the land of Arşapi or Arşawi, also mentioned in the Tell el-Amarna letters, with Alashiya is simply 'Sache des Glaubens': the name of its king, Tarkhundaraush, definitely points to Cilicia as his home.

The same writer's further argument that Alashiya (so called by the cuneiform-using peoples, and spelt *Alasa* by the Egyptians of Amenhotep III.'s time) is really the same as the land of Asy, probably vocalized Ā'sey<sup>a</sup>, of Thothmes III. (the / being dropped in the earlier and less correct pronunciation, but restored when the cuneiform spelling showed the Egyptian scribes the proper transliteration), is not only ingenious, but extremely probable. This identification simplifies matters considerably; we no longer have to accommodate at least three land-names with territory in Cyprus.

Yantánay then is certainly the whole of Cyprus; Alashiya, called Ā'sey<sup>a</sup> by the Egyptians until they learnt to spell it properly as Alas'a, is probably part of it, though the very doubtful Cilician possibility must not be altogether lost sight of.

It seems probable enough that the term Keftiu, though not identical with Cyprus alone, as Birch and Chabas maintained,<sup>1</sup> included Cyprus; the Keftians of Rekhmára's tomb bring ivory to Egypt, as the Alashiyans did, and the King of Yantánay sent Thothmes III. as a present a silver vase 'of Keftiu-work,' which at least shows connection, if identity be not conceded; and the fact that Ā'sey<sup>a</sup> (Alashiya) and Keftiu are mentioned separately in the 'Hymn of Amen' as representing the West, need not mean that the first, which was the name of a single land, was never included in the second, which was a vague geographical designation. If, however, the distinction is insisted upon, and Cyprus is considered outside the boundary of Keftiu, then the last name is simply pushed further to the west, in the direction of Crete and the Aegean, which were certainly included in it in the times of Hatshepsut and Thothmes III. Archaeological research in Crete has shown us that Greece proper was in communication with Egypt at least as early as the time of the XIIth Dynasty, and that these relations were continued under the XIIIth, and during the Hyksos or 'Intermediate'

<sup>1</sup> *Mémoire sur une Patrie égyptienne*; pp. 23 ff., 50 ff. Brugsch preferred Crete. Both were right, if Keftiu includes both Crete and Cyprus.

period : the tombs of the XVIIIth Dynasty at Thebes have shown us that Mycenaeans, probably of Crete, had set foot in Egypt as early as 1500 B.C.

And now I come to a point which bears on the question of the route which Cretans would take to get to Egypt at this time. *Keftiu* is mentioned in the same sentence with *Asy* (Alashiya) which, if it is not Cyprus or part of it, must be placed on the Cilician coast, and in lists of foreign peoples is always mentioned in conjunction with the Syrians and before the Kheta. That is to say, Keftiu was away beyond the Kheta, and at the same time could be placed in juxtaposition to the Syrians. I took this to be a further indication that Cyprus was intended to be included in the Keftiu-countries, for this is precisely the geographical position usually assigned to Alashiya, but if Keftiu is really Crete, Rhodes, and the Aegean islands only, why is Greece mentioned in this category, unless we assume that the Cretans came to fight via Cyprus and the Palestinian coast? If they came across the sea direct to Libya, why are they not rather mentioned in conjunction with Libyan tribes than with those of Asia Minor and Syria? I think this point in favour of my view is worth examination.<sup>1</sup>

The Mycenaean objects depicted on the walls of XVIIIth Dynasty Theban tombs (in the necropolis-hill of Shékh 'Abd al-Kûrna) as brought by the Keftiu to Egypt, are chiefly metal vases of various kinds, among which the familiar *Bügelkanne* does not figure, though golden *Bügelkannen* are represented three hundred years later in the tomb of Rameses III.<sup>2</sup> More especially we see (Fig. 1) long one-handled vases of the type of the *Trichter* or *False Trichter* (without the hole : a Mycenaean beer-warmer!) like those figured by Furtwängler-Löschcke, vii. Fig. 42, xi. Fig. 71; and precisely like that carried by the cupbearer at Knossos.<sup>3</sup> These vases are very characteristic of the Keftians. The warrior with

<sup>1</sup> Also the use of the 'Ring' and 'Circle' terms for the Mediterranean lands looks to me as if the earliest way of getting to Crete was by circling round the coast-line ; you began with the Fore Lands to the east of the Delta, passed on to the first twist round (the *debn* of the VIIIth Dynasty?) to Palestine, then reached the next 'left incline' at the 'Circle' (Kedi, the Gulf of Issos) and passed along the coasts of the Back of Beyond, the Hinder Lands, to the southerly turn which brought you to the Isles of the West.

<sup>2</sup> That the clay *Bügelkanne* had already reached Egypt at this time is shown by the specimen (doubtless of Cretan origin) from the Maket tomb at Kahun (temp. Thothmes III.).

<sup>3</sup> A similar 'beer-warmer' in Egyptian blue faience of late XVIIIth or XIXth Dynasty date is preserved in the Fourth Egyptian Room of the British Museum (No. 22,731), where it is exhibited together with two XIXth Dynasty blue faience *Bügelkannen* (No. 30,451); the first two published by me in *Oldest Civilization*, Figs. 53, 52). No. 22,731 is presumably the *Trichter* mentioned by v. Bissing, *Jahrb. Arch. Inst. loc. cit.*

drawn sword who looks back to make some remark to his comrade who follows in the great procession of Mycenaean gift-bearers in the tomb of Rekhmārā (Fig. 2 below) carries a great white vase with curved handles, which, as v. Bissing has pointed out,<sup>1</sup> are exactly like those of the well known alabaster vase from Mycenae (Schliemann, *Mycenae*, Fig. 356). I think, however, that this vase was of silver. The sword carried by this warrior is remarkable: the type is definitely European. Hitherto the form of the hilt has been incorrectly reproduced in all drawings of the Keftiu; I have given it more accurately in Fig. 2, though the pommel should be rounder, and may be compared with that of the sword represented on the remarkable onyx cameo discovered by Mr. Evans



FIG. 1.  
(Tomb of Rekhmārā.)



FIG. 2.  
(Tomb of Rekhmārā.)



FIG. 3.  
(After Virey, *Tombeau de Rekhmārā*.)

at Knossos in 1902. The whole sword bears a remarkable resemblance to a well-known type from Italy, of Early Bronze Age date, of which several specimens are preserved in the British Museum, Ethnological Department.<sup>2</sup> The date usually assigned to these Italian swords, or rather daggers, by students of European archaeology, is about 1600 B.C., which is, within fifty years, the exact date of the Rekhmārā frescoes. A development of this early form, which also bears considerable resemblance to our Keftian weapon, is known from Italy and Greece in later days. The Mycenaean swords from Ialyssos are quite different in type, having a cross-guard.

<sup>1</sup> *Iuc. cit.*

<sup>2</sup> Temple Bequest, 1856; W. T. 703: Blacas, 1867. The same type is also known from Neuenheiligen in Germany (*Horae Ferales*, vii. 10) and La Guillotière in France (*ib.* vii. 8).

Another Keftian from the same tomb, carrying a very Mycenaean *prochous*, is also figured above (Fig. 3). In the tomb of Menkheperrāsenb two silver vases, each with a single line of embossed or inlaid spirals running round the centre, have handles not distantly resembling those of the famous golden δέπας ἀμφικύπελλον from the tomb at Mycenae (Schliemann, *op. cit.*, Fig. 346). In the earlier tomb of Senmut, now unhappily ruined but for the precious fragment of fresco in the north-western corner of the forehall, which contains what is left of the Keftian representations, are carefully depicted several cups of the type of the famous Cups of Vaphio, and the silver cup from Enkomi, but of more elaborate

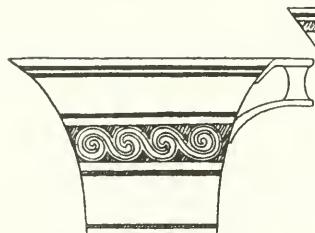


FIG. 4.

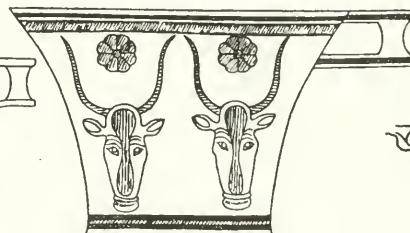


FIG. 5.

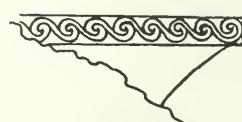


FIG. 6.

(Tomb of Senmut; after Prisse d'Avennes, corrected in accordance with my notes, 1902.)

(Sketched in the Tomb of Senmut.)

workmanship than the last and of enormous size. These vases were very accurately reproduced in colour by Prisse d'Avennes in his *Histoire de l'Art Égyptienne* (*Vases des Tributaires de Kafa*, Nos. 2, 9,) of which the blocks in my *Oldest Civilization of Greece* are tracings: the illustrations given above (Figs. 4, 5) show them more correctly, however. Both vases are of silver inlaid with gold. A fragment on the extreme left, where the wall is broken away, shows a golden vase of the same type, decorated with inlaid copper spirals (Fig. 6). A vase of similar type, but rather more elongated shape, is depicted among the Keftian gifts in the somewhat later tomb of Menkheperrāsenb; it bears an inlaid design of two bucrania, with horns interlaced. This remains as yet unpublished. The type occurs again, four hundred years later, in the tomb of Imādua, who lived in the time of Rameses IX., Neferkarā, of the XXth Dynasty, as late as 1100 B.C. This brings the Mycenaean period down later than the usual

theories of date would allow, and very near the time of the Pinetchems and Pisbankhas. Besides the vases of Vaphio type, the Keftian on the extreme right carries on his shoulder a magnificent prochous, the lower part of which is of gold, the upper, with neck and handle, of silver; a chased band of silver masks the junction (Fig. 7); the raised ring on the shoulder is found on Cretan vases, cf. those from Zakro published by Hogarth in *J.H.S.* xxii., pl. 12, stone vases and others of Kamáres ware, from Knossos, published by the same writer in the *Annual* for 1899–1900 vol. vi., Fig. 24. (A similar ring occurs on the great white vase in the tomb of Rekhmárā, already alluded to.) His second fellow to the left carries a massive vase of copper or bronze with a heavy mouth, four ring handles



FIG. 7.

(Sketched in the Tomb of Senmut.)

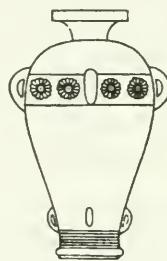


FIG. 8.

at its greatest circumference, and four near the base, which is a massive ring-stand with a projecting band close to the lower edge; in line with the upper set of handles is a band of rosettes (Fig. 8). This remarkable vase has already been figured, not quite accurately, by Prisse d'Avennes, *loc. cit.*, followed without correction by Müller, *Asien u. Europa*, p. 349. It appears to me to bear considerable analogies to the appearance of certain types of Kamáres pottery which are evidently derived from metal originals. (*Annual*, vi. Figs. 24, 27 [8]). The two sets of handles occur on the great Knossian *pithoi*. Among the tribute in Rekhmárā's tomb are also depicted, besides a fine silver prochous with beautiful gold bands of spirals covering its body,<sup>1</sup> a great golden *protome* of a bull,<sup>2</sup> exactly resembling the famous silver bull's head with the golden rosette on its forehead which was found at Mycenae, and other *protomai* of animals, especially lions.

<sup>1</sup> Prisse d'Avennes, *loc. cit.* 4; *Oldest Civilization*, Fig. 47.<sup>2</sup> *Ibid.* Fig. 21.

Which of these, we wonder, is of the type of the 'silver *shabti*' vase of the work of Keftiu' which was sent to Thothmes III. in the forty-second year of his reign by the king of Yantānay? And were the 'four vases of bronze with silver handles, weighing 56 *dchn* 1 *kcdt*', sent at the same time 'with all the good things of that land,' also Mycenaean? The productions of the Mycenaean art workers might well seem good to the Egyptian chronicler, and certainly the Egyptian decorator of the tomb of Senmut did his best to perpetuate their goodliness for all time.

Most of these Mycenaean objects seem particularly Cretan in appearance, and it seems very probable that these embassies came from Crete during the great age of Knossos and Phaistos.

But among the Mycenaean vases brought by the Keftians are also others which are not of Mycenaean workmanship. These are apparently Phoenician imitations of Egyptian work, since in style they are more or less Egyptian. This fact compels us to believe that much of the commerce between the Keftian lands and Egypt filtered through Phoenician channels, and that the Keftian ambassadors quite possibly came *via* Phoenicia, and in Phoenician ships. The Phoenicians were active navigators and merchants then and afterwards; all the Phoenician cities known to us in 'classical' times were already great and flourishing, and, as we see from the Tell el-Amarna letters, which have shed so priceless a light upon the state of the Nearer East in the fifteenth century B.C., were devoted, as careful merchants and bankers should be, to the interests of the protecting arm of Egypt. The bulk of the commerce between Egypt and the Mediterranean lands was evidently carried in Phoenician bottoms, and in a tomb of this period at Thebes there existed till lately a fresco, discovered and published by M. Daressy,<sup>1</sup> which depicted the busy scene at the Theban quays on the arrival of a Phoenician merchant-ship, with its beak-nosed owners in their voluminous and multi-coloured robes on board, one of whom carries a small Mycenaean amphora of the type of one found in Egypt and now exhibited in the Egyptian Department of the British Museum (No. 4858; *Oidest Civilization of Greece*, Fig. 49).

That this importation from Keftiu of Mycenaean objects, and probably of Mycenaean ambassadors also, by Phoenicians occasionally led to some confusion in the minds of the Egyptians is natural, and the result is that occasionally we find Keftian tribute-bearers represented as approximating

<sup>1</sup> *Rev. Arch.* xxvii. (1895) pl. 14-15, Maspero, *Premières Mèlées*, p. 407.

to the Semitic type.<sup>1</sup> No doubt the question may fairly be asked whether this is really a mistake, and whether undetermined Semites from the far north were not sometimes included in the Keftian names as well as the Mycenaeans. But this is hardly possible, for in the most carefully decorated tombs, such as those of Senmut and Rekhmára, the people from Keftiu are always depicted as Mycenaeans of the type of the Knossian cupbearer and the bull-catchers of the Vaphio cups: the representation of Keftians as Semites is unusual, and only occurs when the subject is bearded; the influence of use and custom seems then to have inclined the artist's hand to approximate to the Semitic type. But when Mycenaeans are correctly represented they are always described as Keftians and bear no other name. It seems then that when the Egyptian artist represented Keftians as Semites, he was simply making a mistake. In any case the fact cannot be taken to support the obsolete view that the Keftians were Phoenicians, seeing that when Mycenaeans appear they are always called Keftians, and after all that has been urged to the contrary above.

Keftiu then is primarily the North-western coasts of the Mediterranean, from Crete to Cyprus: and it is possible that the name was also used in a restricted sense to denote Crete alone.

#### IV.—THE PEOPLES OF THE SEA.

We can now turn to the tribes of the Mediterranean, not described as Keftians, who came into contact with the Egyptians during the period between the XVIIIth and XXIst Dynasties (*c.* 1500-1000 B.C.), and are generally known as the mysterious and much-disputed 'Peoples of the Sea.' With the end of the XVIIIth Dynasty the word *Keftiu* disappears from the Egyptian monuments, and seems to have been no longer generally used. A list of Keftian proper names on a writing-board and a list of words of the Keftian language on papyrus, which date to the end of the XVIIIth Dynasty, are the last records of the men of Keftiu. In the place of the vague geographical term *Keftiu* we now meet with the names of individual tribes of the Great Green Sea, known to the Egyptians as piratical warriors who made the traversing of the sea unsafe for peaceful merchants and

<sup>1</sup> In the tomb of Menkheperräsenb, once or twice; in the tomb of Amenemhab, the well-known General of Amenhetep II., usually.

travellers, and from time to time descended in predatory hordes, allied with the restless tribes of Libya, upon the Egyptian Delta, with no other mission but to burn, to kill, and to enslave, or allied themselves with either Egyptian or Kheta for pay and subsistence. The peaceful and highly-civilized Keftians disappear, but Mycenaean culture did not disappear from the ken of the Egyptians with them. The XIXth Dynasty foreign settlement at Gurob has yielded Mycenaean vases; Mycenaean 'Bügelkannen' and 'Trichter' were imitated in Egyptian blue *faïence* by the XIXth Dynasty potters, and Mycenaean 'Bügelkannen' and *pithoi* of copper and gold are depicted among the costly *κειμηλία* of the tomb of King Rameses III. of the XXth Dynasty (*c.* 1200 B.C.); even later traces of Mycenaean art may be noted in Egypt. Thus, during the whole period of the piratical activity of the 'Peoples of the Sea' Mycenaean civilization was in existence, and in connection with Egypt. And we shall see that many of these peoples must have been Mycenaeans, while others, if probably outside the circle of Mycenaean culture, lived so close to its confines that they must have been considerably influenced by it.

It was natural that in the days before Schliemann De Rouge's identification of many of them with Dardanians, Danaans, and Achaians, and all the host of the wars of Troy should have met with considerable incredulity; and it is true that some of his identifications never held water. But we now see that others were by no means so absurd as they were perhaps naturally considered to be in the 'sixties, and the historical insight of Prof. Maspero has succeeded in sifting the wheat from the chaff with regard to them so well that there remains but little for others to do.

In the Tell el-Amarna letters three tribes are mentioned which we do not meet with on the monuments of the XVIIth Dynasty. These were the *Lukki*, piratical seafarers who raided the lands of the king of Alashiya, the *Sirdana*, apparently mercenary soldiers who served any master for pay, and the *Danuna*, a tribe settled on the Canaanitish coast. That the Lukki are Lycians there is no reason to doubt, but Mr. Torr has suggested (*Class. Rev. loc. cit.* p. 184) that they were rather the inhabitants of the land of *Laki*, mentioned among the conquests of Asshur-natsir-pal, which he places in Phoenicia and identifies with the valley of the Lykos, the modern Nah̄r el-Kelb. But we know perfectly well where Laki was: it is definitely described in the inscription quoted by Mr. Torr as being partly 'on this [*i.e.* the Assyrian] side of the Euphrates,' and extending to the region of the

Upper Tigris (the *Subnat* or *Sebene-su*), *i.e.* the district of Diarbekr. The inscription does not mention any 'great sea of the land of Lakî,' but, like others of the same king, speaks of Asshur-natsir-pal as 'the king who from beyond the Tigris even up to Mount Lebanon and the Great Sea, the whole of the land of Lakî, and the land of Sukhi, together with the city of Rapiķi, hath cast into subjection under his feet, and (the territory) from the source of the river Subnat up to the pass which lieth over against it hath conquered with his hand.'<sup>1</sup> Since Lakî is certainly the district between the Upper Euphrates and the Tigris, and Lukki was a Mediterranean country with ships and seamen, there is no need to point out also the philological impossibility of identifying *La-ki-e* with *Lu-uk-ki*.

Since, then, we have no Assyrian, Phoenician, or Biblical record of any people, land, or river in this neighbourhood with any name resembling *Lukki* and *Lykos*, and it is inherently probable that the *Nahr el-Kelb* has always been called the 'Dog River,' and that its Greek and Arabic names are translations of the original Phoenician, Mr. Torr's identification of the country of the Lukki with the little gorge of the Lykos (which, by the way, has not much room for inhabitants) will hardly hold. That the *Lukki* were no mere inhabitants of a Phoenician fishing-village is shown by the fact of their appearance as a nation side by side with the 'Cilicians' and 'Pisidians,' among the allies of the Kheta in the war against Rameses II. We have no reason whatever to refuse to recognize in them the Lycians.

It is on the occasion of this war against Rameses II. that the northern tribes next cross our path. The princes of the Kheta, whose main seat seems to have been Cappadocia, and whose empire seems to have spread at one time or other westward to Mt. Sipylos and in the fourteenth century B.C. had been extended as far south as Northern Palestine, found the new dominion over the Syrians which they had acquired during the *fainéance* of Khuenâten seriously threatened by the warlike activity of Seti I. of Egypt and his son Rameses, both of whom aspired to restore to Egypt the Asiatic dominion of Amenhetep III. Accordingly they

<sup>1</sup> Transl. by Budge and King, *Annals of the Kings of Assyria*, p. 344. The text reads:— 'Sarru ša ištu ebirtān Idiglat adi Labnana u tāmdi rabite, Lakî ana sihirti-ša Šuhî adi Rapikî ana šēp-šu ušikni-ša, ištu rēš eni Sūbnât adi nirib ša bitani kāt-su ikšud.' The passage giving the exact position of Lakî reads:—' Alâni ša šēp annate ša Puratte ša Lakî ša Suhi' (*ib.* p. 355). Further, the cities of the land of Lakî were reached after the king had gone up into the narrows of the Euphrates, and in other inscriptions the country is spoken of as lying between Carchemish and Urartu (Ararat).

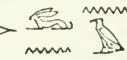
joined to them the forces of their dependents and allies in Asia Minor and advanced to meet the Egyptian attack, which, however, triumphed at the Battle of Kadesh. Among these allies are the following foreign tribes of the north: the people of Luka, who are the same as the *Lukki* or Lycians, those of Pidasa (*i.e.* the Pisidians), of Kalakisha (the Cilicians), and three others, the tribes of Dardenui and of Masa, and of a land whose name has been variously read as Maunna, Áriunna or Iliuna, and Iaunna or Yevanna. Of the identity of the Kalakisha, the Pidasa, and the Luka there seems little reason to doubt: the *-sha* termination of the name of the first is, as I have pointed out,<sup>1</sup> merely the Asia Minor nominal suffix *-azi* or *-aza*, which we find in Lycian, and is the well-known termination *-ασσις* or *-ασσος*, so characteristic of Asia Minor place-names. Prof. Petrie, however, has lately suggested<sup>2</sup> that Kalakisha (Qarkish) rather = Kirkesion on the Euphrates, and that the Pidasa were not Pisidians or Pedasians (Leleges) but people from the river Pidias (Prof. Petrie uses the modern form) in Cyprus. I am unable to see that the last supposition has anything in its favour. The name of the Pedaeus is purely Greek, and cannot have existed in pre-Hellenic times: it was so obviously conferred because this river flows through the only plain of Cyprus. We cannot even accept Prof. Petrie's suggestion with the necessary corollary that Greek was already spoken in Cyprus c. 1300 B.C., because the people who came from the banks of the Pedaeus would in that case have been the Πεδαιοι: the final *s* would have disappeared, and so the Egyptians could not have represented it as *Pi-da-sa*. In any case, Prof. Petrie himself points out that the allies were 'a body of chariots': is it not more likely that the Pidasa were continentals like the rest than that they were a small 'body of chariots' specially, and with great trouble, transported from Cyprus? Prof. Petrie accepts the equation Luka = Lycians: why not identify their companions the Pidasa with the neighbouring Pisidians or with the Pedasians of Caria (Leleges)?<sup>3</sup> The other identification is thus far probable: now that we know the meaning of the *-sha* termination, it seems to me, as before, that the identification of *Karak-i-sha* or *Kalaki-sha* with the Kilik-ians is the natural one, but it may well be that Kirk-es-ion may have been a settlement of Karakisha (Kilikians). The conjunction with Carchemish (which itself possibly ends

<sup>1</sup> *Oldest Civilization of Greece*, p. 178.

<sup>2</sup> *Proc. Soc. Bibl. Arch.* xxiv. p. 317.

<sup>3</sup> *Oldest Civilization*, p. 100.

with the Asia Minor termination) is in favour of Professor Petrie's identification with the Kilikian settlement on the Euphrates rather than with the race in general.

The further identifications of the *Masa* with the Mysians and of the *Dardenui* with the Dardanians, tempting though they are, we may perhaps hesitate to accept fully until some further light has been thrown upon the whole question of the exact geographical limits of the Kheta dominion. There is no proof of the validity of these identifications beyond remarkably close similarity of name, and the Mysians and Dardanians are rather far afield ; the Mysians in fact were still astride the Hellespont in Homeric days. Prof. Petrie suggests *Jebel Musa* near the Orontes and *Jebel Durdun* in Cilicia. I cannot see that the first need be any more than 'Moses' Hill,' but the second is more probable. But still the Dardenui who lived in Cilicia in Rameses II.'s time and left their name in *Jebel Durdun* may be the same as the Dardanians who lived in Phrygia in Homeric days. When the Dardenui were regarded as Dardanians of Troy it was natural enough to read the name  as *Ariunna* and so identify it with Ilion (*Iliunna*) : alternative readings *Ma-un-na* (= Maconia?) and *Iaunna* or *Y<sup>e</sup>-w<sup>n</sup>-na* (= Ionia?)<sup>1</sup> have been proposed. Prof. Petrie has now, it seems to me, found the most probable identification. He reads *Ari-wen-na* and identifies with Oroanda. This fits in entirely : *ari* is the most usual value of , and the termination *-na* corresponds, as it should do, with an ending in *-nda*. Another name of the allies, *Katchauadana*, Prof. Petrie identifies with *Kataonia*.

Here then we have a body of allies drawn by the Kheta from the western confines of their kingdom, the centre of which was Cappadocia ; Cilicians of several tribes, Kataonians (?), Oroandians, Pisidians or Pedasians (Leleges from Karia), and Lycians. The Lycians are thus mentioned for the second time in Egyptian annals. The majority of these tribes were, as far as we know, non-Mycenaean, but that Leleges and Lycians were in the fourteenth century B.C. if not comprised within the circle of, at least strongly influenced by, Mycenaean culture, which we find in full activity in Crete and perhaps in Rhodes also in the sixteenth, is inherently probable.

<sup>1</sup> W. M. Müller, *Asien u. Europa*, p. 369. This is the least probable reading and identification. I have already noted (*Oldest Civilization*, p. 129) that no 'Vivana' are mentioned in the Tell el-Amarna letters.

We next meet with the Peoples of the Sea nearly seventy years later, when the long reign of Rameses II. had come to an end, and the state of decadence into which Egypt had sunk during the old age of her 'Grand Monarque,' is significantly marked by the ravaging of the Delta by the hosts of the Northerners in alliance with the wild marauders of Libya, led by the chiefs of the Masha or Mashauasha.<sup>1</sup> The Northerners seem to have reverted to the time-honoured traditions of the Ha-nebu, the peaceful intercourse with Keftiu is forgotten, and the Mycenaeans of this latter day appear simply as marauding vikings, 'fighting to fill their bellies daily,' as the Egyptian record pithily puts it.

The *Mehtiu* who had 'come from all quarters' and 'from the lands of the Great Green . . . to Egypt, to seek food for their mouth,' whom 'the miserable Libyan led hither,' consisted of, besides the Luka again, the Akaiuasha, the Turusha or Thuirsha, the Shakarusha or Shakalesha, and the Shardina. These last we have met already. They are the same as the mercenary soldiers of the Sirdana, mentioned in the Tell el-Amarna letters two hundred years before, and, the Varangians of their day, under Rameses II. they enlisted in the Egyptian service as life-guards.

De Rouge's identification of the Akaiuasha with the Achaeans has only once been challenged, by Brugsch, when he felt an uncontrollable desire to banish the whole collection of Peoples of the Sea to the Caucasus.<sup>2</sup> The supposed difficulties in the way are non-existent: the representation of χ by the Egyptian *q* (*k*) has an exact reverse parallel in the Assyrian name for the Cilicians, *Hilakku*; the -asha or -sha termination is merely the Asia Minor nominal suffix -azi or -aza, already referred to, with which most of these names, including even that of the Libyan Masha or Maxyes, end; and W. M. Müller has shown that neither the Akaiuasha nor any of the rest of these tribes were circumcised, as used to be thought the case.<sup>3</sup> *Akaiua-sha* means simply the 'Αχαιοι. Whether the use of the Lycian suffix shows that these proto-Achaeans themselves still spoke one of the Asia Minor group of tongues, which, as Kretschmer has shown, at one time included the whole of Greece, insular and continental, in its territory, or whether it simply means that the Egyptians took their name down from an Asia Minor source, as was probably the case with regard to

<sup>1</sup> The Maxyes; see Budge, *Hist. Eg.* v. 150, vi. 39.

<sup>2</sup> *Egypt under the Pharaohs*, ii. 124.

<sup>3</sup> *Proc. Soc. Bibl. Arch.* x. p. 147 ff.

the Mashauasha, must remain uncertain: the former view seems very probable; Aryan Greek may not even yet (1200 B.C.) have been spoken far south in Greece.

We have other somewhat earlier evidence of the presence of the Thuirsha on Egyptian soil in the name of an official, An-Tursha, whose grave was found at Gurob; that the foreigners in whose settlement the grave of this 'Pillar of the Tursha' (such is the signification of his name) was found were themselves Tursha or Thuirsha is a legitimate conclusion enough. I am no more able now than two years ago to give them a local habitation, and a more or less Greek name of their own. The 'Eastern Tyrsenians' of Asia Minor seem to be the Toréboi simply. And Italy is too far off to go for them, as is also the case with the Shardina. The next tribe, the Shakelesha, are undoubtedly, as Maspero concluded twenty years ago,<sup>1</sup> the Sagalassians of Pisidia. They are the representatives of the Pidasa of seventy years before. The identification absolutely hits the right nail on the head. The name is of the required Asia Minor form; Sagalassos = *Sagal-aza* = Shakalesha. And the Sagalassians are not too far off, as De Rougé's Sikels were. Mr. Müller rejects the identification with the Sikels (*Asien u. Europa*, p. 357) but accepts that of the Thuirsha with the Tyrsenians and that of the Shardina with the Sardinians; if the two last are probable, the first is equally so. For the identification of the Shardina with the Sardinians De Rougé was also responsible, but, in spite of the tempting resemblance of the name, it seems to me that if we remember that *-na* is also an Asia Minor nominal suffix, as well as *-asha*, it will seem evident that Maspero's identification with the Sardians of Lydia is far more probable. If we identify them with tribes of the Aegean and Asia Minor coast, we have all these peoples close to heel, and not careering off too far to the west. Also they are spoken of as coming from the direction of Asia, and, like the Keftians before them, in connection with the Kheta of Cappadocia.

The invaders were defeated by Pharaoh Merenptah at Piaru in the Delta, and there fell of the Libyans over 6300 men, and of the uncircum-

<sup>1</sup> W. M. Müller (*Mitth. der Vorderasiatischen Gesellschaft*, 1900, p. 4) errs in attributing this identification to Herr C. Niebuhr, who seems, when he repeated it (*Orientalische Litteraturzeitung*, ii. 381) to have been unaware that Prof. Maspero had twenty years' priority of him in the matter.

cised in all 2372 hands were taken as trophies, of which the Shakalesha contributed 250 (212 men) and the Turusha 790 (742 men).

The Akaiuasha, the Thuirsha or Tur(u)sha, and the Shakalesha apparently visited the Nile-land no more, but the subsequent history of the Shardina is interesting. We have seen that they served the Egyptians as mercenary soldiers in the time of Khuenâten and Rameses II.; they then turned against their old employers and fought them in the company of their own kith and kin; afterwards they again returned to their allegiance, and when the next shock of Northern attack fell upon Egypt fifty years later in the reign of Rameses III. the formidable Varangians proved true to the salt which they had eaten, and the 'mighty men of the Shardina' formed, with some Thuirsha, the backbone of the Egyptian army and fleet which overthrew the Philistines and their allies, among them apparently other Shardina, off the Syrian coast. The whole story presents a most curious parallel to the doings of the Northmen in the Middle Sea in the eighth and ninth centuries of our era.

After defeating another Libyan attack in his fifth year, three years after Rameses III. found his kingdom threatened by a serious combination of the predatory Northerners; besides some Shardina, the *Purusatha* or *Pulesatha*, the *Uashasha*, the *Tchakaray* (*Zakar*), and the *Danaâu* or *Danauna* are mentioned. The last-named have been already mentioned; they are evidently the *Danuna* mentioned in the Tell el-Amarna letters. That the Pulesatha must be the Pelishtim or Philistines is generally admitted, and tradition is unanimous in bringing the Philistines from Crete, which if it be Caphtor, gives a further reason for the identification of Keftiu with Crete. That the Philistines were an intrusive non-Semitic element in the land to which they gave the name of Palestine is evident, and there is no reason against the many reasons for an acceptance of the traditions which bring them from Crete.<sup>1</sup> We find no mention of them before this date, and it is at least probable that it was now that their migration took place. It is certain that they moved as a whole migratory people: they landed a large proportion of their men, women, and children,

<sup>1</sup> On this subject cf. Principal Moore's article *Philistines* in the *Encyclopaedia Biblica*, and the articles of W. M. Müller in the *Mitth. Vorderasiat. Ges.* for 1900. The latter is the first to comment on the occurrence of the name Caphtor in a Ptolemaic inscription at Ombos, as *Keptar* (p. 5). The fact that the translators of the Septuagint translated Caphtor by 'Cappadocia' shows that they were looking in the right direction for a country with a name resembling Caphtor.

goods and chattels, for a large proportion of the invading host marched by land, with their households and household gods in rude two-wheeled carts drawn by oxen. It seems that the landing took place on the southern coast of Asia Minor, for the expedition is described, probably in exaggerated terms, as follows:—‘The Isles were restless, disturbed among themselves at one and the same time. No land stood before them, beginning from Kheta (Cappadocia and Cilicia), Kedi (the ‘circling’ of the Syrian coast at the Gulf of Iskanderun), Carchemish, Arvad, and Alashiya. They destroyed them, and assembled in their camp in the midst of Amar (*Amurru*; Palestine).’ It is a regular *Völkerwanderung*, coming by ship from the isles, and ejecting an irresistible, slowly moving horde on to the coast west of Cilicia, which spread over Northern Syria, like a swarm of locusts, destroying as it went, while the ships coasted along the land, overwhelming Cyprus on the way, till the whole came to a halt on the Palestinian coast, where the Egyptian army and fleet met, and, according to the Egyptian account, in the amphibious conflict which followed annihilated the invaders. But in view of the fact that the Philistines were in full possession of Philistia not so very long after, we may well doubt the completeness of the annihilation.

Like the Pulesatha, the Tchakaray and Danauna who accompanied them were also primarily maritime tribes. The Tchakaray are mentioned as dangerous sea-pirates as late as the XXIst Dynasty (1050 B.C.) when the Egyptian envoy Uenuāmen was prevented by their ships from leaving the harbour of Byblos. Their personal appearance as represented on the Egyptian monuments is not merely un-Semitic, but definitely European, and since the name *Danauna* evidently ends with the same Asia Minor suffix as that of the Shardina (the simple form *Danaän* is actually found), it is evident that both tribes must be relegated with the Pulesatha to the ‘Isles’ from which the Egyptians said they came. So that the mention of the *Danna* in the Tell el-Amarna letters merely shows that in the fifteenth century B.C. they already possessed a settlement on the coast of Palestine, just as the Tchakaray are still found in possession of the town of Dor in the time of Uenuāmen, nearly four hundred years later. These settlements are analogous to the isolated colonies of Teutons who squatted on the ‘Saxon Shore’ long before the main hordes of Saxons and Angles swarmed over into Britain and ‘no land stood before them.’

If the Pulesatha, Tchakaray, and Danauna came from the Isles, so did the Uashasha 'of the sea.' The identity of the last three tribes is by no means so obvious as that of the Pulesatha. For the *Uashasha* I have suggested an identification with the Axians of Crete.<sup>1</sup> \**Waxaza* would be a correct *kleinasiatisch* translation of *\*Aξιοι*, and if the Pulesatha came from Crete, why not the Uashasha? I do not see that the objection that Axos is not a seaport town is valid: it no doubt had its dependent port either at Bali Bay or nearer the mouth of the Mylopotamos (Oaxes). The lower Oaxes valley would naturally belong to Eleutherna, but Eleutherna may itself have then been dependent upon Axos, whose name was identical with that of the river from source to mouth. But this is mere arguing in the clouds: I repeat my suggestion, relying on the fact that *Uashasha* must be an Egyptian transliteration of a *kleinasiatisch* \**Waxaza*, which would be a correct translation of the Greek *Fάξιοι*.

I went on to bring the *Tchakaray* and *Danauna* also from Crete, and adopted the old identifications with the *Τευκροί* and *Δαβαοί* of Greece. The difficulty with the former is the *v*. On account of this Müller has rejected the identification, but can propose no substitute. Nor can I, but since the presence of the *v* forms a very valid objection, I am content to temporarily relegate the *Tchakaray* to the same limbo of uncertainty as the *Thuirsha*. The identification of the *Danauna* with the old tribal name of the *Δαβαοί*, used to denote a tribe of Greece, probably Pelasgians, and not in its Homeric sense, is more than tempting. Müller regarded it in 1893 very cautiously as 'Sache des Glaubens,' but I imagine that now the *-na* termination has been explained, he would be more inclined to accept it, especially since we have the name in its simple form as *Danaāu*, without the nominal affix.

Of the tribes which attacked Egypt under Rameses III., then, one is traditionally regarded as having come from Crete, and eventually settled on the Palestinian coast, where several finds of Mycenaean pottery, at Tell el-Hesy, Tell es-Safi, &c., point to a connection with Mycenaean peoples, if not to a Mycenaean population in Palestine itself; another possibly came from Crete; another may be Cretan Danaans, who established settlements on the Palestinian coast; the last is uncertain, but if the others came from Crete, why not it also?

There is nowhere else to place these tribes or the others before them.

Whatever their names might be we should have no option but to place them on the southern coast of Asia Minor, in Crete and the Aegean; the Egyptian evidence is clear as to their origin; they are not Palestinians, but tribes of the 'Great Green Sea,' who came, like the Keftiu before them, from the 'Isles of the West.'

Their personal appearance on the Egyptian monuments is as un-Semitic as that of the Keftians. Often, as Müller has already remarked, the features of the Philistines (Fig. 9) and of many of the Shardina (*Oldest Civilization*, Fig. 50, right) at Medinet Habu are of the classical straight-nosed Greek type, and the Tchakaray (Fig. 10) are, as has already been remarked, European in face: in fact, all with occasional exceptions are definitely European in appearance, some with the moderately aquiline nose of the Italian (*Oldest Civilization*, Fig. 41; *Asien u. Europa*, p. 364), others with a decided snub (*Asien u. Europa*, p. 375; *Oldest Civilization*, Fig. 50, left). We have only to look at their portraits to see that they all come from west of the Taurus, and many no doubt from Europe itself.



FIG. 9.—A PHILISTINE.  
Temp. Rameses III. (Medinet Habu.)



FIG. 10.—A TCHAKARAY.  
Temp. Rameses III.  
(Medinet Habu.)

Their costume points the same way. The Philistines, Tchakaray, and Uashasha wear the distinctive feather headdress which the Lycians wore at Salamis (Hdt. vii. 92) and which the Ionians are represented on the Assyrian monuments as wearing. It is worn by warriors on a Geometrical vase fragment from Mycenae,<sup>1</sup> and by a warrior armed with an axe on a carved draught-box from Enkomi.<sup>2</sup>

The great round shields and long broad swords of the Shardina, which they retained in Egypt even when wearing an Egyptian gala-uniform, are absolutely European, as absolutely different from the shield and dagger or curved scimitar of Egypt as from the weapons of the Semites.

<sup>1</sup> Wide, *Jahrb. Arch. Inst.* xiv, p. 85

<sup>2</sup> Murray, *Excavations in Cyprus*, p. 12, Fig. 10.

The shields are quite Homeric: the swords Mycenaean enough. The Shardina usually, the others sometimes, wore body-armour, as we see in the representation of the sea-fight with Rameses III. (Fig. 11). Further, the dress of these warriors is, as has been pointed out by W. M. Müller (*Asien u. Europa*, p. 378), identical with that of a warrior represented on an Ialyssian gem (Furtwängler-Löschcke, *Myk. Vasen*, E. 30).

'And so, perhaps, the warriors of the Akaiwasha, the Danaúna, and the rest, to whom Zeus had indeed given it "from youth even unto age to wind the skein of grievous wars until every man of them perished," were the representatives in the second millennium B.C., of the historic peoples whose names they seem to bear.' And at this time at least some of these tribes must have been comprised within the circle of Mycenaean civilization.

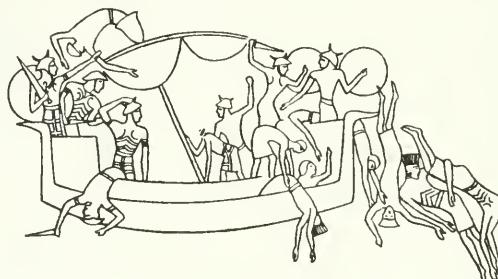


FIG. 11.—A SHIP MANNED BY SHARDINA AND PHILISTINES, ATTACKED BY THE EGYPTIANS.  
*Temb.* Rameses III. (Medinet Habu.)

We have however no definite ascription of Mycenaean objects to them, as in the case of the Keftians; but, although the Mycenaean pots at Gurob may not have been brought there by Thuirsha, their occurrence in a foreign settlement one of whose officials was a Thuirsha certainly connects this tribe with Mycenaean culture; and the finds of Mycenaean pottery in the domain of the Philistines point in the same direction. It is noticeable moreover that in the XIXth Dynasty and in the reign of Rameses III. the *Bügelkanne*, more characteristic of the later or true Mycenaean period than of its earlier or 'Minôan' phase, became very much sought after in Egypt. We see *Bügelkannen* of gold and of copper in the tomb of Rameses III. which bear the same zigzag ornament as do the already mentioned small Egyptian blue faience false-necked vases in the British Museum (Fourth Egyptian Room, Nos. 30,451): great *pithoi*, perhaps also

of Mycenaean origin, represented with these, are ornamented either with the same pattern or with un-Egyptian wavy lines strongly suggestive of the raised ornament of the *pithoi* of Knossos and Ialysos (Fig. 12).<sup>1</sup> In fact, the latter phase of 'Mycenacan' culture exemplified by the discoveries at Ialysos was in operation in the days when Egypt was attacked by Mediterranean tribes of European aspect, often bearing names identical with Greek tribal appellations, some of whom can only have come from lands then comprised within the circle of Mycenaean culture. Those were days of *Sturm und Drang* in the Eastern Mediterranean and probably in the Mycenaean lands also. There has been a great change from the

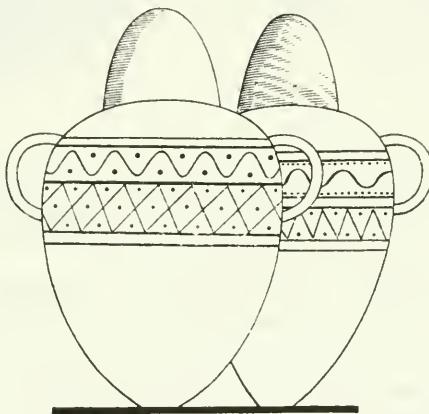


FIG. 12.—REPRESENTATIONS OF MYCENAEAN (?) METAL *Pithoi*: TOMB OF RAMESSES III.  
Circa 1200-1150 B.C.

days of the 'Great Men of Keftiu'; we are no longer dealing with highly civilized Mycenaeans of the Cretan type, but with less cultured warriors, perhaps of the type of the robber-princes who may have heaped up the fastness of Mycenae with the spoil of Cretan cities. The earlier 'Mycenaeans' came to Egypt in the days when the king of Alashiya corresponded amicably with his 'brother' of Egypt, and the king of Yantánay sent great silver vases of the work of Keftiu as his greatest

<sup>1</sup> The Egyptian painter has Egyptianized the forms in some measure, but the character of the ornamentation, and its identity with that of the *Brigelkannen* with which these vases are associated, make it very probable that they are carelessly represented Mycenaean *pithoi* but of metal, not of clay.

mark of friendship and respect for the ruler of the Nile-land. The resemblance of the Keftiu, whose gold and silver vases were triumphs of Mycenaean art, to the men of Knossos, is not merely fortuitous : these were ambassadors from peaceful Minōan Crete. The Minōan period, the great age of Knossos and Phaistos, was contemporaneous with the great age of Egypt also, the times of the Thothmes and the Amenheteps ; the later day when the centre of the altered Mycenaean culture had passed from Crete to continental Greece is the time when the peaceful *Keftiu* had passed from the ken of the Egyptians, and, in the days of the degenerate Ramessids of Egypt, their place had been taken by wandering tribes amid whose internecine struggles the older civilization of Greece slowly degenerated and finally passed away.

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#### XVIII<sup>TH</sup> DYNASTY OBJECTS FROM MYCENAE.

An important Egyptian object, hitherto unpublished, was found at Mycenae and is now in the National Museum at Athens, No. 4573. It is



the upper part and head of an ape, of blue vitreous composition, bearing on the right shoulder the cartouche of Amenhetep II., Āa-kheperu-Rā, picked out in yellow (Fig. 13). This is the earliest Egyptian dated object found at Mycenae. It is contemporary : the date is about 1480 B.C.

Another dated object was also found at Mycenae some years ago ; it bears the number 2491 in the Athens Museum. This is a small handleless vase of blue glazed faience with a design of lotus-leaves in alternating dark and light blue glaze, bearing the cartouche of Amenhetep III. (*circa* 1450 B.C.) in light blue (Figs. 14, 15). This vase was published in the Εφημερὶς Ἀρχαιολογικὴ for 1888, p. 156. It is considerably restored, as may be seen from the illustration here given, but the shape is correct ; the vase is of a common Egyptian type of the XVIII<sup>th</sup> Dynasty. Luckily the greater part of the cartouche has been preserved.

FIG. 13.

These objects confirm the generally accepted argument for the contemporaneity of the Mycenaean period with the XVIIIth Egyptian

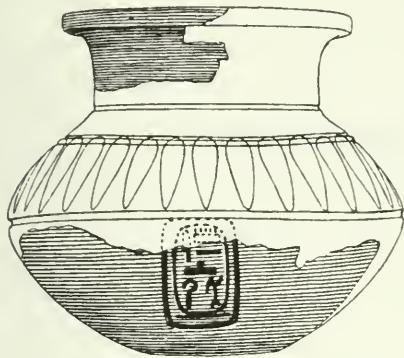


FIG. 14.

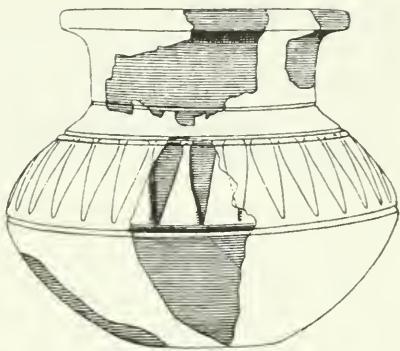


FIG. 15.

Dynasty which has been drawn from the previously known occurrence of objects of Amenheteps III. and IV, and Thii from Mycenae and Cyprus.

I am indebted to M. Tsountas for permission to publish them.

H. R. HALL.

## SCULPTURES FROM CYZICUS.

(PLATES IV.—VI.)

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### I.

IN the present paucity of archaic sculpture from Northern Asia Minor (from Cyzicus we have only the beautiful fragment of a chariot relief at Tchinly Kiosk<sup>1</sup>) the much damaged relief of Heracles here reproduced (Plate IV. 1) is not without its value. It was discovered during the demolition of the old Armenian Church at Aidinjik, a village about an hour from Cyzicus, on the mainland west of the isthmus : thanks to Mr. Th. Makrys of Panderma, who providentially brought me to the spot, it has now been removed to the safety of the Imperial Museum.

The dimensions of the slab are about  $0\cdot55 \times 0\cdot37$  metres, and the right edge is preserved : Heracles strides to left, with the left leg foremost ; both legs are broken off above the knee : the stump of the left arm shews that it was stretched out horizontally holding the bow, the right being bent behind the head for a blow with the club ; the type is in its broad outlines a reproduction of the ‘promachos’ type used in so many early statues of Zeus, Poseidon, Athena, in fact any of the gods connected with combat ; we may quote the Zeus of Ithome, and the Poseidon on coins of Poseidonia. Our Heracles is clothed in a short, sleeveless chiton and the lion skin, which covers the head and hangs below the waist in an undercut fold which probably terminated in the lion’s tail : the hairs are indicated by short curved incisions arranged symmetrically in rows. A short sword with a large pommel hangs from a cross-belt at the hero’s side.

The face, in spite of the loss of the nose, shews careful modelling :

<sup>1</sup> *B.C.H.* xviii. (1884) p. 493; *Catal.* 135.

the eye is, as usual at this date, shewn full face, the lips are rather full and the projecting beard is half-concealed by the left shoulder being thrust forward. The right eye is indicated.

The conventions of the period in the direction of excessive musculature, thickness of limbs, and thinness of waist, are not prominent, and in the head especially, making allowance for mutilation, we recognise a highly finished work of the late sixth century. The relief is simple and rather flat, the turn of the body on the hips to bring forward the left shoulder is in consequence inadequately rendered.

Our nearest parallel in sculpture is the Heracles of the Cnidian Gigantomachy frieze at Delphi, though the face of the latter seems less advanced in style and harder in outline; the Cnidian Heracles strides to right, the right arm is broken off short, and the left hidden, though it was obviously outstretched: the knotted paws of the lion-skin, denoted in our relief by a shapeless mass beneath the arm, appear on his chest. The notion of relief is ultimately the same in both cases, contrasting sharply with the fine archaic relief of Heracles from Thasos now at Tchiniy Kiosk,<sup>1</sup> which fades into its background like a bronze repoussé.

In the black figured vases representing Heracles in combat, especially with Geryon, we have the pose and dress repeated again and again. Two amphorae, No. B. 310 in the British Museum (Heracles and Geryon), and No. 1,849 at Berlin (Heracles and the Amazons), are, making due allowance for vase-conventions, almost exact parallels, though the hero turns to the right as usual, instead of to the left.

Heracles is connected with the Cyzicus legend by Apollonius Rhodius, who tells us of his encounter with the giants who tried to block the harbour (*Arg.* i. 989 ff.), while according to the Pseudo-Orpheus (*Arg.* 527) he slew the hero Cyzicus. It is probable, however, that these legends are later in origin than our monument. Of the cult of Heracles our only trace is an ex-voto with relief (Michel 1224) which represents him in combat, and dates probably from the third century B.C.<sup>2</sup> He appears frequently on coins, on some of which, dating from Domitian (Mionn. 163, Supp. 213) he is called the founder (*κτίστης*), but Marquardt<sup>3</sup> understands this as merely a compliment to the emperor, who, certainly at Rome, adopted the style of Hercules.<sup>4</sup>

<sup>1</sup> *Catal.* No. 133, *B.C.H.* xviii. p. 64, Pl. XVI.

<sup>2</sup> *J.H.S.* xxii. 199.

<sup>3</sup> *Cyzicus*, p. 44.

<sup>4</sup> *Martial*, ix. 64, 65, 101.

## II.

A second archaic fragment of interest is a marble slab (Plate IV. 2) found on the mainland opposite the isthmus, which once formed part of a large heraldic composition of lions and bulls. The slab measures 1·20 metres long, by 0·57 high and 0·26 thick. Though much has been broken away, sufficient remains to shew that the complete work represented the fore-quarters of two kneeling bulls, now headless, facing outwards, surmounted by two large lions, also facing outwards, of which the hind legs and tails are the only surviving portions. The two outer edges are carved, showing the chests and dewlaps of the bulls: the further forelegs, with a corresponding thickness of the slab, have disappeared: the lower edge, which retains its 'bed,' has a small round dowel hole under the centre of the composition. The small surfaces in very low relief immediately above the lions' haunches, seem intended for the backs of the bulls, shewn in rather naïve perspective, receding from the spectator. The surface work is fine in finish, though not minute as to detail: the rendering of the muscles of the lions' legs is summary and conventional. The texture of the bulls' dewlaps is indicated, as in the well known group at Athens, by wavy incised lines. The date of the fragment is probably near the end of the 6th century B.C.

A bull overpowered by a lion is a favourite subject in archaic Greek art, the group at Athens being a conspicuous example in sculpture, and the coin types of Acanthus in numismatics: the type was also a favourite with early gem engravers. The heraldic arrangement has analogies with Mycenaean schemes, and the same principles of symmetrical juxtaposition survive into historic times on coins.

Two imperial coins of Cyzicus, dating from Commodus and Gallienus,<sup>1</sup> shew us a lion-and-bull group which was evidently in the round, as the coins shew different sides of it. In each case the bull falls on his knees with left hind leg extended, the right being doubled beneath him; the head is lifted, and on it rests the left paw of the lion: the right paw is placed on the bull's right shoulder. The nearly upright position of the lion's hind legs, as well as the complete side view of the bull,

<sup>1</sup> Berlin Münzkabinett. The latter has a head of Cyzicus on the *obv.* but can be dated by the strategos T. 'Ap. Παῦλος.

shew that the connection between the coins and our monument is merely superficial.

As to the restoration of the group, I can only suggest that the lions stood with their paws resting on the heads of the bulls somewhat as the lions of Mycenae place their feet upon the altar: the great height of the original composition (for which the position of the lion's legs is sufficient evidence) and the comparative thinness of the block, preclude I think all possibility of its having been a capital: nor can I believe that the group was in the round: the technique is throughout that of relief, and it is difficult to see how the bulls' hindquarters could logically have been treated on the further side.

It is tempting to connect the group with the temple of Adrasteia, which apparently<sup>1</sup> stood opposite Cyzicus: Adrasteia is now generally regarded as a local Μήτηρ θεῶν, and Ταυροκτόνος, Ταυροφόνος is a stock epithet of the lions of Cybele.<sup>2</sup> For the religious connection, we may compare a small relief in the Pergamon Museum at Berlin,<sup>3</sup> which shews an image of Athena flanked by symmetrical groups of lions and bulls.

### III.

The marble statue shown on Plate V. 3 was found by Mr. de Rustafjaell in 1901 at a spot not far from the southern wall of the city, on the top of a low bank of earth, the undergrowth covering all but the back: Mr. de Rustafjaell photographed it in this condition, and it was cleared in 1902.

The figure measures 1·00 metre from the ground to the seat of the throne, and to the shoulder 1·70: the breadth of the shoulders is 0·54, and the extreme depth of the throne back to front 1·00. It was constructed of many pieces of marble dowelled together: of these the head, arms (which were dowelled to the shoulder and to the sides), feet, and much of the throne and footstool have disappeared. Except for a few breakages in the deeply undercut chiton where it falls to the ground, the surface is wonderfully well preserved.

The goddess (for it is evidently a cultus statue) is seated with the left shoulder slightly forward (the left hand may have held some attribute,

<sup>1</sup> Strab. xii. 1. 13. Plut. *Lucull.* 10.

<sup>2</sup> Cf. Soph. *Phil.* 400, *Orph. Hym.* in *Mat. Deor.* 3, ib. *Hym. in Rheam* 2.

<sup>3</sup> Not yet fully published: an engraving of it forms the Vignette of the Pergamon publications.

perhaps a patera) the right arm by the side : the left leg is planted squarely, the right slightly pushed forward, the lost foot having originally projected over the footstool. The dress consists of a long chiton of pleated stuff, girt high with a narrow belt which had once a metal clasp (the dowel hole only remains) and buttoned over the right shoulder ; the upper part of the chiton follows the contours of the body, but is coarsely executed and gives no idea of the texture of the stuff or of the flesh beneath ; at the feet it falls in small, deeply-cut folds to the ground, spreading out over the footstool and falling down behind it : the effect is florid, perhaps owing partly to the mutilated condition of the extremities of the drapery. Over the knees is thrown a light mantle, which falls on the right side in one broad sweep from the lap to below the knees, and on the left rather more elaborately. Here we have certainly a reminiscence of the great chrys-elephantine works of the fifth century ; the folds are well composed and sharply cut, reminding one rather of the Asclepius reliefs from Epidaurus ; the work is far beyond that of other drapery. Around the back of the figure a thin veil is stretched in tight horizontal folds ; it originally covered the head. The footstool is in two stages ; the upper is surrounded by a moulding, and shews on the right side a crisply executed carving of tendril scroll work, centreing in a pomegranate. Two pinholes in the front suggest that a metal plate, perhaps with a dedicatory inscription, was here affixed. The second stage has also a moulding which was continued round the front on another block projecting beyond the upper stage ; this stage also is decorated with a design of tendrils and palmettes on the outer (right) side.

The pomegranate makes it probable that the statue represented Kore Soteira, whose cult, as we know from countless coins, as well as other evidence (Marquardt, *Cyzicus*, p. 119 ff.) was, down to late Roman times, among the most important at Cyzicus. The present statue may be referred to Hellenistic times : the scheme of drapery occurs very frequently in the Pergamene frieze, where also the inlaying of projecting portions is extensively practised ; the pose is probably derived from the fifth century models, which would naturally still find favour for the representation of the austere divinities.

## IV.

The stele on Plate V. 4 (in a private house at Aidinjik) was published with its inscription by Lolling in *Ath. Mittb.*, ix. (1884), p. 22, No. 16. It will be seen that his restoration *'Αρι]αιθούς* is contradicted by the stone, but no alternative is obvious. As to the sculpture, though the proportions of the seated figure leave something to be desired, the workmanship is refined and delicate, much better than the average of funeral stelae from Cyzicus, and is perhaps as early as the third century B.C. The diminutive size of the figure holding the fan is due to the well-known convention whereby the relative importance of the figures is thus shown.

## V.

The immense Ionic volute figured on Plate VI. 5 was found by Mr. de Rustafjaell's servant Ali, built into a cistern on the mainland opposite the isthmus. It is of yellowish marble, broken on all sides, and measures, in this condition, some 1·13 metres by 0·50, the thickness being only two or three centimetres. Mr. Henderson assesses the approximate original measurements of the capital as follows: extreme breadth, 2·10 metres (of column, 0·90); depth of volute, 1·05. The latter dimension at once diminishes the importance of the twelve petalled rosette which forms the oculus (and is the chief peculiarity of the volute) to no more than that of the disk, which often occupies this position, and is somewhat similarly treated in an early capital figured in Puchstein, *Das Ionische Kapitell* (Fig. 11, p. 8), and another of obviously later date (Fig. 18, p. 27). With the importance of the rosette vanishes the connection of our fragment with the capital from the old Ephesus temple, now completely restored by Dr. Murray from a few insignificant fragments, where the whole of the volute is occupied by a large rosette. In date the Cyzicus fragment is obviously far removed: the work is extremely coarse, noticeably in the palmette and the proportion of the convex<sup>1</sup> canalis to the moulding which borders it on each side.

I have remarked above on the temple of Adrasteia, opposite Cyzicus, from which the volute may have come. It is unnecessary to suppose a

<sup>1</sup> This is also a peculiarity found in the Ephesus temple *J.H.S.* x. 9.

complete order of corresponding dimensions, though that of Ephesus is about half as large again; Mr. Henderson inclines to the belief that the volute comes from an altar, and is consequently rather decorative than strictly architectural; the general flatness of the relief is in favour of such a theory.

## VI.

Fragments of two other curious volutes (Plate VI. 6) of coarse-grained yellowish marble were found by me in 1901, built into one of the loose stone walls which terrace the slope of the acropolis on the outer side of its eastern wall. In 1902 Mr. Henderson and I found in the same neighbourhood a very plain cornice of similar material and style, consisting of two flat fillets joined by a cyma,<sup>1</sup> and a base which, being of different marble, probably does not belong.

The volute measured 0·385 m. across, the pulvinar the same (the latter in its narrowest part has a diameter of 0·28 m.); the column with its echinus measured 0·36 across. The single bead marking the limits of the slightly convex canalis terminates in a convex disk with a small button in the centre.

The peculiarities of the fragment are: (1) the size of the volute as compared with the width of the pulvinar and the diameter of the column—the latter is a well-known characteristic of early Ionic—and (2) the excessive plainness of the design, which is almost without parallel: in particular the concave pulvinar, so richly adorned at Ephesus, is left quite bare.<sup>2</sup> The workmanship, however, is good and delicate, contrasting with the coarseness of the large volute described above. I should be inclined to date these fragments at least as early as the Ephesus temple, where the classical form of the capital is nearly attained, and the volute approximates to its later proportions.

F. W. HASLUCK.

<sup>1</sup> The height of this member is 0·23 m., and its projection c·19; the under side is roughly hollowed.

<sup>2</sup> Cf. Puchstein *op. cit.* fig. 9, p. 12, an early *pores* capital from the Acropolis.

## SOME UNPUBLISHED 'CATALOGI PATERARUM ARGENTEARUM.'

BY the kind permission of Mr. Leonardos I am enabled to publish the following inscriptions, all of which are in the Epigraphic Museum at Athens. They belong to the class of 'Catalogi Paterarum Argentearum,' of which the already published inscriptions are collected in the *Corpus Inscriptionum Atticarum*, Vol. II., Pt. 2, Nos. 768-776, 776 b; Vol. IV., Pt. 2, Nos. 768 b-776 c (pp. 187-192).

I have looked in vain for any indication of the places at which Nos. II., V., and VII. were found, but as all<sup>1</sup> the other members of the series were discovered on the Acropolis, it is safe to infer the same for these three fragments also.

My warmest thanks are due to Dr. Adolf Wilhelm, who, besides in the first instance calling my attention to these inscriptions, has kindly given me valuable assistance in several points of reading and interpretation.

As but one account of the 'Catalogi Paterarum Argentearum' has, so far as I am aware, appeared in English,<sup>2</sup> and that one is not very widely accessible, I may be allowed by way of preface briefly to resume what is known of this interesting class of inscriptions.<sup>3</sup>

They have reached us, unfortunately, in a very fragmentary form: the

<sup>1</sup> All, that is, of whose provenance we have information: i.e., Nos. III. (IV.) and VI. in the present series, and all in the *C.I.A.* exc. Nos. 774-776, whose locality is unknown, and No. 771b, described as 'Athenis repertum.'

<sup>2</sup> C. D. Buck, 'Inscriptions found upon the Akropolis' in the *American Journal of Archaeology*, iv. 1888 p. 149 foll.

<sup>3</sup> See M. Clerc, *Les Méteques Athéniens*, Paris, 1893 p. 288 foll.; G. Foucart, *De libertorum conditione apud Athenienses*, Paris, 1896, p. 61 foll.; V. Thumser, 'Lehrbuch der griechischen Staatsaltertümer' in K. F. Hermann's *Lehrbuch der griechischen Antiquitäten*, Vol. 1 part 2, (sixth edition, Freiburg i. B. 1892), p. 418 foll.

stones on which they occur are evidently portions of large stelae, of which there must have been several; how many it is not possible to determine. The writing, which varies very greatly in merit, is in all cases small and abounding in abbreviations: sometimes it is very difficult to decipher, owing partly to careless execution, partly to the state of preservation of the stones themselves. The general character of the letters dates the inscriptions to the latter part of the fourth century, B.C. When we turn to their contents, we find that they consist of lists, whose items follow a regular formula of the type: Πολύτιμος ἐν Κολλυτῷ οἰκῶν σκυτοτόμος ἀποφυγῶν Καλλίαν Καλλιάδον Παιανιέα φιάλην σταθμόν: H. The last three words make it plain that we have to deal with dedications, and an examination of the inscriptions shows that these dedications are unvarying not only in form, always consisting of a *φιάλη*,<sup>1</sup> but also in weight, each one weighing a hundred drachmas. The names of the dedicators stand in the nominative, and it needs but a glance at the list to convince us that we have to deal not with free Athenian citizens, but with slaves, or, at any rate, those of servile origin. No other supposition will account for names such as Σωτηρίς, Εὐτυχίς, Μάνης, Σωσίας, Συνέτη, Πλίννα, Ἀρμένιος, Θρᾶττα, Ὄνησίμη, Ἐλλάς, to quote but a few instances. The second item in the formula, however, proves that these persons are no longer slaves: throughout these inscriptions the words *οἰκῶν* *ἐν* followed by a local name (in almost every case that of an Attic deme) come immediately after the dedicators' names, and this betokens that they are in fact metics. This is followed in turn by a word denoting some trade or employment, partly, no doubt, to aid identification and make up for the absence of the patronymic. Of these trade-names we shall have something to say later: at present we may remark that they are usually, but not invariably present, and that they sometimes precede, sometimes follow, the deme of residence. We have, next, the word *ἀποφυγῶν*:<sup>2</sup> in it we must certainly see a legal significance, that, namely, of acquittal in a trial. The accusative which follows gives the name of the plaintiff, and it is here that the greatest variety meets us: usually we have the name of a citizen with patronymic and demotic, though

<sup>1</sup> Pollux I. 28 τὰ δ' ἀναθήματα ὡς ἐπὶ τὸ πολὺ στέφανοι, φιάλαι, ἐκπώματα, κτλ. Cf. Wallon, *Mém. de l'acad. des inser.* xix. 2 p. 274 foll. *Φιάλαι* are shallow circular vessels, without handles, and usually without bases, used chiefly for drinking and libations.

<sup>2</sup> In a few inscriptions of this class *ἀπέφυγε* takes the place of *ἀποφυγῶν* and the words *φιάλην σταθμόν*: H are wanting; we must suppose that in these the reference to the *φιάλη* was included in the heading.

in two inscriptions the patronymic is lacking. But we have also metics, *ἰσοτελεῖς*, *πρόξενοι*, Olynthians, a Trozenian and a Theban<sup>1</sup> appearing as accusers : we find, again, two or even three names conjoined, in one case a ward with his guardian, sometimes two brothers, or father and son, &c. ; or we have the name of a citizen or metic in conjunction with a *κοινὸν ἔρανιστῶν*.<sup>2</sup>

There is, however, a number of inscriptions which show a remarkable variation amounting to a complete reversal of the formula. In them the word *ἀποφυγών* is altogether lacking, the citizen's name appears in the nominative, that of the metic-freedman in the accusative. Thus we have, for example, *Λυσιάδης Χίωνος Ἀλωπεκῆθεν Σωστράτην ταλασιουργὸν ἐμ Μελίτη οἴκονσαν φιάλην* : H.

So much the inscriptions themselves told ; how was their import interpreted ? Pittakis,<sup>3</sup> who edited the first stone of this class to be discovered, made no attempt to explain it. Rangabé<sup>4</sup> rightly saw that the dedication was the result of an acquittal in some trial : further he did not go. Curtius<sup>5</sup> was the first to insist on the servile origin of those who bore such names as we above noticed, but abandoning the legal sense of *ἀποφυγών* he interpreted the dedications as made by runaway slaves who found asylum in a temple and received freedom on condition of offering this votive *φιάλη*. Wallon<sup>6</sup> rightly points out the untenability of this theory as involving a right of asylum amounting to an abolition of slavery : his own interpretation, however, according to which the *φιάλη* is the price paid for asylum granted while the slave demands his sale to another master (*πρᾶσιν αἰτεῖσθαι*), is hardly more satisfactory. A step forward was made by Köhler<sup>7</sup> who identified these votive cups with the silver *φιάλαι ἐξελευθερικαὶ* mentioned in a fragment of the accounts inscribed by the Treasurers of Athena, which Köhler first published. But neglecting the legal bearing of the word *ἀποφυγών* he thought that we have here simply a thank-offering made in accordance with law or custom by each freedman after his

<sup>1</sup> See note on Insc. III. col. iii. l. 2.

<sup>2</sup> Lüders, *Die diouys. Künstler*, p. 47 ; Ziebarth, *Das griechische Vereinswesen*, pp. 35 f., 135 f.

<sup>3</sup> 'Εφ. 'Αρχ. 124 (1839).

<sup>4</sup> *Antiq. Hell.* 234, 881, 882.

<sup>5</sup> *Inscr. Att. nuper repertae duodecim*, p. 19 (1843).

<sup>6</sup> *Mémoires de l'acad. des inscr. et belles-lettres xix.* 2 p. 266 foll. (1853). This article appears to have escaped the notice of M. Clerc and M. Foucart.

<sup>7</sup> *Mittheilungen aus Athen*, III. (1878), p. 172 foll.

manumission. Schenkl<sup>1</sup> returned to the true meaning of ἀποφυγών, believing that usage compelled metics to dedicate a cup of certain value after acquittal in the law courts: in a later article,<sup>2</sup> however, he gave the true explanation—that these φιάλαι were dedicated after acquittal in an action ἀποστασίου. And, in fact, a stone of this class had been published<sup>3</sup> in 1879 by Koumanoudes containing part of the heading of one of these inscriptions, reading

-τος Δημοτέλους τοῦ Ἀντιμάχου Ἀλ-  
-οστασίου ἐκατονβαιῶνος π[έμπτ]ει ἐπὶ [δ]έκ[α]

The restoration<sup>4</sup> of πολεμαρχοῦν]τος in the first line, and of δίκαι ἀπ]οστ-  
ασίου in the second is no longer open to doubt.<sup>5</sup>

The freedman in Attica occupied in general the position of a metic; but he stood at the same time in a special relation to his former master. We have no means of ascertaining exactly what his duties were, save that he was obliged to have his former master as patron (*προστάτης*). For the rest, the duties required probably varied from case to case, being in part at least the result of a compact made at the time of manumission. For a breach of any of these duties the patron could bring against the freedman a δίκη ἀποστασίου:<sup>6</sup> if the freedman lost, he returned into a state of servitude; if he was acquitted, he was freed for ever from all duties to his former master, and became a free metic.

We see, then, that the metics who dedicated, whether in deference to law or to custom, the φιάλαι ἔξελευθερικαί had been accused by their patrons of failing to perform their duty to them. They had been acquitted, and were now metics pure and simple, having the privilege of free-born metics, that of choosing their own patrons.<sup>7</sup>

<sup>1</sup> *Wiener Studien*, 1880, p. 213—218.

<sup>2</sup> *Zeitschr. f. oe terr. Gymn.* 1881, p. 167 foll.

<sup>3</sup> *Ἀθηναῖον* VIII. 528 (= *C.I.A.* ii. 2. 776).

<sup>4</sup> Wilamowitz-Moellendorff in *Hermes* xxii. (1887), p. 110.

<sup>5</sup> Köhler indeed in editing the *Corpus Insc. Attic.* still hesitated: but the difficulty he felt about accepting Schenkl's explanation (cf. Lipsius in Meier-Schömann-Lipsius 621, note 373) rests upon the assumption that the δίκη ἀποστασίου can only be brought if a freedman enrols himself under a patron (*προστάτης*) other than his former master. In reality it covers a much wider field. Cf. also Clerc, *op. cit.* 292.

<sup>6</sup> Harpocr. ἀποστασίου δίκη τίς ἔστι κατὰ τῶν ἀπέλευθερωθέντων δεδομένη τοῖς ἀπέλευ-  
θερώσασιν, ἐὰν ἀφιστῶνται τι ἀπ' αὐτῶν ή ἔτερον ἐπιγράφωνται προστάτην καὶ κελεύοντιν οἱ  
νόμοι μὴ ποιᾶσιν· καὶ τοὺς μὲν ἀλόντας δεῖ διύλους εἶναι, τοὺς δὲ νικήσαντας τελέως ἤδη ἐλευ-  
θέρους. Cf. Thunser, *loc. cit.* p. 418, n. 6.

<sup>7</sup> Such appears to me one of the natural results of an acquittal in a δίκη ἀποστασίου. I do not quite understand M. Th. Reinach's difficulty in accepting the statement that 'l'affranchi vainqueur dans la δίκη ἀποστασίου choisissait désormais librement son patron' (*Rev. Ét. Gr.* x. 111).

Can we explain the curious reversal of the formula which, as we saw, appears in some inscriptions? Köhler attributed it to carelessness on the part of the stone-cutter; but such a theory, improbable in itself, has been quite put out of court by the number of stones which have been discovered showing this peculiarity.

Wilamowitz<sup>1</sup> suggested that in these cases the patrons won their suits, and that we might therefore supply the legal term corresponding to *ἀποφυγών*, namely *ἐλών*. Though he himself rejected this explanation in favour of another which seems to have far less probability,<sup>2</sup> the suggestion has been adopted by Thümser,<sup>3</sup> and it has been maintained afresh by G. Foucart.<sup>4</sup> To me it appears a perfectly rational and sufficient solution of the problem.

The question has been raised why the successful party in the suit *ἀποστασίου* should have had to pay a tax of a silver phiale to the treasury of Athena. No completely satisfactory answer has been given. It has been suggested that the patron, if successful, paid the hundred silver drachmas to indemnify the State for the loss of the *μετοίκιον* of the convicted: but why, then, should the metics, if acquitted, pay a similar tax? Others<sup>5</sup> say that the stake was so great that the custom arose, perhaps enforced afterwards by a decree, of dedicating a cup to Athena as a thank-offering for success. For the freedman the stake was undoubtedly immense: freedom and slavery hung in the balance. But to the patron the matter was not usually one of such moment as that his success should cause him any overwhelming thankfulness to Providence.

Taking into consideration the manumissions known to us from Thessaly,<sup>6</sup> where the liberated slaves had to make a payment of 15 staters to the Treasury, I am inclined to believe that the *φιάλη* was, to all intents and purposes, a registration fee paid to secure the inscription in a public place of the result of the trial. In Thessaly the tax was paid immediately on manumission, and twice a year a proclamation was made of the names of those who had paid the tax, which were afterwards inscribed in the public

<sup>1</sup> *Hermes* xxii. p. 110, n. 1.

<sup>2</sup> 'Ἐξελθμενος εἰς ἐλευθερίαν. See Thümser, *I.c.*; Wachsmuth, *Stadt Athen*, ii. 1. 151, n. 2.

<sup>3</sup> Thümser, *I.c.*, 418 n. 7.

<sup>4</sup> G. Foucart, *op. cit.* 64 foll. M. Foucart appears to have arrived at this result independently of Wilamowitz-Moellendorff and Thümser, since he does not refer to their works.

<sup>5</sup> G. Foucart, p. 76, and others.

<sup>6</sup> *Bull. de Corr. Hell.* 1887, p. 364, foll.

accounts and served as an incontestable proof of the freedman's status. In Athens there was no fixed form of manumission, and difficulties were constantly arising as to the real status of persons who claim to be free: once the matter had been decided, and the result inscribed on the accounts of the treasurers of Athena there could be for the future no doubt and no dispute. This is not to deny that the dedication was enforced by law: its uniformity requires, I believe, something more than custom to account for it: but the state as well as the individual was interested in getting an official list of those who had been condemned to slavery again, and those whose trial had resulted in their liberation from all duties to their former masters. And so it may well be, as Mr. Bosanquet has suggested to me, that the action was not in all cases a *bona fide* one, that sometimes it took place by collusion. A master could reward a faithful slave by manumission, a patron could likewise reward a faithful freedman by liberating him from all ties and duties to himself, but in order that this might be done officially, publicly, and definitely, so that after the patron's death no dispute could arise, the action may sometimes have taken the form of a δίκη ἀποστασίου,<sup>1</sup> the freedman being acquitted by collusion of his patron.

But the interest of these inscriptions is not exhausted when we have arrived at an understanding of their legal import. As above remarked, to the name of the freedman is appended not only his deme of residence, but also, in most cases, the occupation in which he is engaged. We are thus brought face to face with a series of trades and manufactures, in conjunction with the demes in which they were carried on, a series which, it is almost needless to add, is of the utmost value for the history of ancient Athens on that side where early literary evidence is most deficient. If we are to obtain any adequate idea of the life of the Athenians, we must turn aside now and again from the discussions of Council and Assembly, from the clash of arms and the wordy warfare of the Law Court, and visit the quays of the Peiraeus where the merchant awaits the ships which bring his wares from East and from West, or the Market Place with its array of booths filled with the multifarious goods of the retail dealers, or the workshops in which are produced the various articles demanded by necessity

<sup>1</sup> Like Clerc (*op. cit.* p. 290) I am unable to understand Wachsmuth's note (*Stadt Athen*, ii. 151 n. 2): since, however, he speaks of a 'Freilassung durch Loskauf, die vor Gericht in Form einer δίκη ἀποστασίου erfolgte' there may be some reference to a theory such as I have above stated.

or luxury. To some this may seem little short of sacrilege: accustomed to move in the semi-ideal atmosphere of Greek philosophy, Greek literature, Greek art, they may refuse to descend to the grosser air of the Market Place, or to allow their eyes to rest on its commonplace and often sordid sights, and their ears to be filled with its inharmonious din. But surely the ultimate gain more than outweighs the temporary sense of loss. We may lose our ethereal city, the product of our dreams, but we gain the city of fact and of history, and, above all, we bridge over the chasm which so often seems to separate a real present from an idealized past, and feel the continuity that exists between the two, feel that the ancients were after all men of the same stuff as we ourselves. I need therefore offer no apology for reviewing in a few sentences the trades and callings mentioned in the class of inscriptions which we are at present discussing.<sup>1</sup>

We may begin our survey with the industrial, or manufacturing classes. Of workers in metal we find in our inscriptions two goldsmiths (*χρυσοχόοι*<sup>2</sup>), both resident in Kydathenaion, and a blacksmith (*χαλκεύς*<sup>3</sup>) in Peiraeus. More interesting are the two engravers of gems to be set in rings (*δακτυλιογλύφοι*<sup>4</sup>), who both reside in Melite, a deme contiguous to Kydathenaion.

Turning next to those engaged in the leather industry, we may distinguish two classes. Firstly, there were the tanners (*βυρσοδέψαι*,<sup>5</sup> *σκυλοδέψαι*<sup>6</sup>), and, secondly, there were those who dealt with the leather these produced. Of the latter class our inscriptions bring before us a

<sup>1</sup> Besides the well-known works of Büchsenschütz, *Besitz und Erwerb im Griechischen Alterthume* Halle, 1869; and Blümner, *Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern*, 4 vols. Leipzig, 1875–1887, I may specially mention G. Scherling, *Quibus rebus singulorum Atticae pagorum incolae operam dederint* in Vol. xviii. of *Leipziger Studien für Classischen Philologie*, Leipzig, 1897, and the Appendix to Clerc, *op. cit.* p. 450. Clerc, Book III. sect. ii. pp. 387 foll. should also be consulted.

<sup>2</sup> Aristoph. *Lys.* 408; Demosth. *in Meid.* 23 foll.

<sup>3</sup> Arist. *Poet.* 26. 21 *χαλκέας* (*φάσιν εἶναι*) *τοὺς τὸν σίδηρον ἐργαζομένους*. Hesych. *χαλκεύς*: *πᾶς τεχνίτης, καὶ δὲ ἀργυροκόπος, καὶ δὲ χρυσοχόος*. In *Od.* 3. 432 *χαλκεύς*=*χρυσοχόος* (cf. l. 425); and in *Od.* 9. 391 it = 'worker in iron' (cf. l. 393).

<sup>4</sup> See note on the inscription published below, No. III. col. ii. l. 14.

<sup>5</sup> Aristoph. *Eg.* 44 *ἐπιτάτῳ δοῦλον, βυρσοδέψην Παφλαγόνα*. *Nub.* 581 (the reference in the Thesaurus to *Eg.* 447 is an error); cf. *Plut.* 167, *Pax* 753. These passages, amongst many, show in what repute tanners were held by the Athenians.

<sup>6</sup> *Σκυλόδεψος* occurs in [Dem.] xxv. 781. 18; the edd. restore it in Hesych. (s.v.) for the MS. *σκυλοδέψιος*. More common is *σκυλοδέψης*, e.g. Aristoph. *Av.* 490 *χαλκῆς, κεραμῆς, σκυλοδέψαι, σκυτῆς, βαλανῆς, κ.τ.λ.*; *Ecccl.* 420. Eustath. quotes by-forms *σκυλάδεψος, σκυλαδέψης*.

number of saddlers (*σκυτοτόμοι*<sup>1</sup>) two bootmakers (*ύποδηματοποιοί*<sup>2</sup>) and a female cobbler (*νευροράφες*<sup>3</sup>). It is worth remarking that one of the tanners is a resident in Kydathenaion, where we know<sup>4</sup> that Kleon's tannery was situated, and though the location of the other is unknown, a probable conjecture<sup>5</sup> places it in the same deme: certainly his former master was a metic resident in Kydathenaion. In the neighbouring deme of Melite we find two, if not three, of the saddlers, and also one of the bootmakers, while two of the former lived in Skambonidai, as well as the cobbler. I have rendered the word *σκυτοτόμος* 'saddler' although in the classical literature it seems to bear more frequently the meaning 'shoemaker'<sup>6</sup> and may well be used in the same sense here, because it seems more probable that here the word bears the wider meaning of 'leather-worker' (perhaps including also the making of shoes) as distinguished from the more restricted term *ύποδηματοποιός*. It is interesting to find this latter word used in the fourth century, B.C., for hitherto it has not been known earlier than the writings of Chrysostom, towards the close of the fourth century of our era. The modern Athenian bootmaker over whose shop figures the legend ΥΠΟΔΗΜΑΤΟΠΟΙΟΣ is to be congratulated on thus at one stroke adding seven centuries to his pedigree!

Of workers in wood our inscriptions give us but one example, a 'couch-maker' or upholsterer (*κλινοποιός*<sup>7</sup>), living in Kollytos. It is when we come to the woollen industry that we find the occupation which predominates. We have no less than thirty-three, possibly thirty-four 'wool-workers' (*ταλασιουργοί*<sup>8</sup>), all of them women, scattered over

<sup>1</sup> *Il.* 7. 221; Plato, *Resp.* x. 601c; Xen. *Hell.* iii. 4. 17; *Cyrop.* vi. 2. 37; and cf. below, note 6.

<sup>2</sup> See note on inscription III. iii. 4. '*Υποδηματάριος* occurs in Curtius *Inscr.* Att. p. 32, n. 192. 8, *ύποδηματορράφος* in Arcadius, p. 84. 26; Synes. p. 117.

<sup>3</sup> Arist. *Eg.* 739, *νευρορράφοις καὶ σκυτοτόμοις καὶ βυρσοπάλαισιν*. Plato *Resp.* iv. 421A speaks of them with contempt; cf. Themist. in *Sophista*, p. 263B. Another sense of the word is given by Schol. Plat. ad *L.c.* p. 402 *Νευρορράφοις ἐπει Δυκοῦργος τοὺς τὰ νεῦρα ράπτοντας τὰς λύρας*. The word has not hitherto been known in the feminine.

<sup>4</sup> Kirchner, *Hermes* xxxi. p. 254.

<sup>5</sup> Scherling, *op. cit.* p. 39.

<sup>6</sup> Aristoph. *Lys.* 414, 416; *Ecccl.* 385; Plato, *Gorg.* 447D, 490E, etc.; Aristot. *Eth. Nic.* I. 1101A 4; Pollux vii. 80.

<sup>7</sup> See note on inscription III. ii. 21, and add Pollux vii. 111. Kollytos seems to have been the centre of the wood-working industry; see Scherling *op. cit.* p. 48.

<sup>8</sup> There does not seem to be any warrant for confining the word (as L. and S.) to spinning: it probably includes carding, spinning, and weaving (cf. Bekker, *Anecd. Gr.* *ταλασιουργοί· οἱ ιστοργοί*). The woollen manufacture was considered as belonging naturally, we might almost say essentially, to the women; see Plato, *Ion* 540C; but especially Suid. s.v. *ταλασιουργία*.

a wide area. The largest number is claimed by Melite (6), Kydathenaion (5, ? 6) and Peiraeus (5); but we find instances also in the suburban demes of Alopeke and Keiriadai, and in the country at Thorikos, Iphistiadai, and Kephisia. These latter doubtless spun the wool on the spot where it was produced, and it is worth noting that the patrons of those who lived in the city belonged in many cases to country demes, Perithoidai, Halai, Lamprai (2), Gargettos, etc., where in all probability they owned flocks of sheep whose wool was spun by their freed-women living for the most part, as we have seen, in the City or in Peiraeus.

Agriculture is represented by eight farmers (*γεωργοί*), or, as we should probably more correctly render the word 'farm hands,' and one vine-dresser (*ἀμπελουργός*<sup>1</sup>). The latter is found in Oe, which lay to the North of the modern Pass of Daphni by which the Sacred Way passes from the Attic to the Thriasian Plain: those of the former whose demes we know belong to Skambonidai, Phaleron, Iphistiadai, Salamis,<sup>2</sup> Hagnus, and Kolonus. Except Skambonidai and Kolonus, these are, as we should have expected *a priori*, country demes: Hagnus lay in the plain of the Mesogeia, Iphistiadai at the upper end of the plain of Athens, not far from the modern Kephisia: in it Plato<sup>3</sup> owned a plot of land, as also in Eiresidai, the deme of Praxiteles,<sup>4</sup> which probably lay immediately to the West of it. Skambonidai lay on the outskirts of the City, in all probability<sup>5</sup> on the Sacred Way, and Kolonus was famous for its groves and gardens, immortalized by Sophocles' exquisite description.<sup>6</sup>

From agriculture we turn to trade. We find two merchants (*ἐμπόροι*<sup>7</sup>) both living in Peiraeus; doubtless they were engaged in the import trade which was of such vital moment to Attica. As distinguished from these importers and wholesale merchants, we have a large number of retailers, who bought from them to sell in turn to the public. Most of them, we may believe, had stalls in the Market or in the neighbouring Theseion, where they displayed their wares; others lived in Peiraeus, where there was a large population and doubtless a brisk trade. These dealers include a considerable number of women, though men are in a slight majority, and

<sup>1</sup> Aristoph. *Pax*, 190.

<sup>2</sup> G. Foucart, *op. cit.* p. 52.

<sup>3</sup> Diog. Laert. iii. 41.

<sup>4</sup> Loewy, *Insch. griech. Bildhauer*, note to No. 537.

<sup>5</sup> Scherling, *op. cit.* p. 41, foll.

<sup>6</sup> *Oed. Col.* 16 foll., 58 foll., 668 foll.

<sup>7</sup> Plato, *Resp.* ii. 371D; cf. Schol. Aristoph. *Pl.* 521, and the following note.

live almost exclusively in Melite, Alopeke, and Peiraeus. Some are marked simply by the term retailer (*κάπηλος*,<sup>1</sup> *καπηλίς*<sup>2</sup>): others have a more definite description. Thus we have an ironmonger (*σιδηροπώλης*<sup>3</sup>), a baker (*ἀρτοπώλης*<sup>4</sup>), a dried-fish seller (*ταριχοπώλης*<sup>5</sup>), a greengrocer (*όσπριοπώλης*), three sellers of sesame (*σησαμοπώλης*, -*ις*<sup>6</sup>), three of frankincense (*λιβανωτοπώλης*, -*ις*<sup>7</sup>), and two sellers of hemp, or, possibly, of hempen cloth (*στυππειοπώλης*, -*ις*<sup>8</sup>). In all these dealers number nineteen, or possibly twenty, of whom six reside in Melite, four in Alopeke, and three, or perhaps four, in Peiraeus: four are of unknown residence, and the remaining two belong to Kollytos.

The Comedians, thanks largely to Athenaeus, and the Orators have left us a sufficiently clear picture of the Athenian Agora, a picture abounding in life and activity and marked by countless touches which bring home to us the fact that here at any rate there is no great difference between ancient times and our own day. As we read we cannot but be struck by the resemblance borne by the picture to the scenes we have witnessed in the market places of some of the larger continental towns of to-day. We see the busy throng of buyers, mostly citizens, or slaves specially detailed for the work,<sup>9</sup>—women are rare among them—going the round of the stalls to make their purchases, assailed by the cries of the vendors. To carry parcels home oneself was considered a mark of dire poverty or else of extreme miserliness<sup>10</sup>; they were usually handed over to the errand boys standing ready to carry them to the purchaser's house;

<sup>1</sup> Plato, *Polit.* 290A, *Protag.* 313C. Metaphorically in [Dem.] xxv. 57, p. 784 *κάπηλος πονηρίας καὶ παλιγκάπηλος καὶ μεταβολέύς*. The contrast between *κάπηλοι* and *ἐμπόροι* is emphasised in Plato, *Kesr.* ii. 371D *καπήλους καλοῦμεν τοὺς πρὸς ὄντην τε καὶ πρᾶσιν διακονοῦντας ιδρυμένους ἐν ἀγορᾷ, τοὺς δὲ πλανήτας ἐπὶ τὰς πόλεις ἐμπόρους*. The *κάπηλοι* are spoken of in the preceding paragraph as *σχεδόν τι οἱ ἀσθενέστατοι τὰ σώματα καὶ ἀχρεῖοι τι ἄλλο ἔργον πράττειν*.

<sup>2</sup> Aristoph. *Thesm.* 347; *Plut.* 435, 1120.

<sup>3</sup> Pollux vii. 196.

<sup>4</sup> Pollux vii. 21; Hesych. s.v. *Πάσανος*. The bread seems usually to have been sold by women; see, e.g. Aristoph. *Vesp.* 238; *Ran.* 858.

<sup>5</sup> Plut. *Mor.* 631D; Lucian, *Vitt. auct. c. 11*; Pollux vii. 27. Blümner, *Griech. Privatalterth.* p. 227, note 1, in K. F. Hermann's *Lehrbuch*.

<sup>6</sup> C. Scherling, *op. cit.* p. 30; neither the masc. nor the fem. form occurs in the *Thesaurus*.

<sup>7</sup> Cratin. *ap. Athen.* xiv. 661E; Pollux vii. 196.

<sup>8</sup> Aristoph. *Eg.* 129 and Schol. Pollux vii. 72.

<sup>9</sup> *Ἄγοραστης* (Pollux iii. 126; Athen. iv. 171A), or *δψώνης*. For this account of the Athenian Agora, I am indebted chiefly to the excellent chapter in Wachsmuth, *Die Stadt Athen im Alterthum*, Leipzig, 1890, Vol. II. part 1, pages 443 foll.

<sup>10</sup> Theophr. *Charact.* 22.

in ancient Athens these were called *προῦνεικοι*,<sup>1</sup> to-day we call them *λούστροι*; it is but a difference of name. But the crowd in the Agora did not consist merely, or even chiefly, of active purchasers. It was the common meeting-place for all who had no special engagement to keep them elsewhere. There the news of the day, political or other, was discussed: public and private announcements were made; and crowds of idle loungers stood by the stalls and watched sellers and buyers. There was also a number of buffoons, beggars, and sycophants—the busiest of that motley crowd. From nine in the morning until noon the market was at its fullest, but the vendors sat there from early morning until sundown,<sup>2</sup> and even when trade was slack there would be those in the Agora who took their daily 'constitutional' here.<sup>3</sup> The booths of the hawkers must have been very similar to the corresponding structures of to day, and in them were displayed most of the various wares of the market-place: only flour was an exception in early times, being sold in the Flour Exchange (*ἀλφιτόπωλις*) built at least as early as 389 B.C.<sup>4</sup> The smaller traders contented themselves with a table or tray on which to set forth their goods, while they themselves sat by under their sun-umbrellas.<sup>5</sup> Each class of merchandise had its own particular location (*κύκλος*)<sup>6</sup> in the Market, called by the name of the ware sold there. Thus we find ὁ ἄρτος and *οἱ ιχθύες*,<sup>7</sup> in which circles we may probably place the *ἄρτοπώλης* and the *ταριχοπώλης* of our inscriptions. There was further the meat-market (*τὰ κρέα*) and the poultry-market (*οἱ ὄρνιθες*).<sup>8</sup> The poorer classes frequented in large numbers the vegetable-market (*τὰ λάχανα*),<sup>9</sup> where doubtless our greengrocer as well as the three sesame-dealers had their

<sup>1</sup> Hesych. *s.v.* *προυνικοί*, Pollux vii. 132, from which passages we learn that they were also called *Βυζάντιοι* and *παιδαρίωνες*. Wachsmuth *l.c.* 456, n. 1.

<sup>2</sup> Wachsmuth, *l.c.* 451, n. 5.

<sup>3</sup> Demosth. liv. 10, p. 1258. 21 (Ariston speaks) *περιπατοῦντος, οὐσπερ εἰώθειν, ἐσπέρας ἐν ἀγορᾷ μονος μετὰ Φανορτράτου.* [Plut.] *Vit. X orat.* 9, p. 849E (Hypereides) *ἐποιεῖτο τὸν περιπατον ἐν τῇ ιχθυοπώλειδι δοημέραι ἑωθινός [cod. ὡς εἰκός].* Athen. viii. 342C "Ἐρμιππος δέ φησιν... ἑωθινὸν τὸν ἕπεριδην ποιεῖσθαι νῦν τὸν περιπάτους ἐν τοῖς ιχθύσι.

<sup>4</sup> It is mentioned in Aristoph. *Ecccl.* 686.

<sup>5</sup> Athen. xiii. 612A.

<sup>6</sup> Pollux x. 18 *ἴνα δ' ἐπιπράσκετο τὰ σκένη, τῆς ἀγορᾶς τὸ μέρος τοῦτο κύκλοι δυομάχυντο, κ.τ.λ.* (Pollux proceeds to quote Diphilos and Alexis); Hesych. *s.v.*; Wachsmuth *l.c.* 462. Plato adopts this arrangement in *Leges* ix. 849E, and xi. 915D.

<sup>7</sup> E.g. Aristoph. *Vesp.* 789; Antiphanes *ap.* Athen. vii. 287E; Alexis *ap.* Athen. iii. 104D.

<sup>8</sup> Dem. *De fals. leg.* xix. 272, p. 417. Aristoph. *Av.* 13 *οὐκ τῶν ὄρνέων* and Schol. *ad. loc.* (Rutherford, *Schol. Aristoph.* i. 427. 8).

<sup>9</sup> Aristoph. *Lys.* 557; Alexis *ap.* Athen. viii. 338E; Diphilos *ap.* Athen. vi. 227E.

stands : sesame, indeed, seems to have had a special corner of the vegetable-ring to itself.<sup>1</sup> Before passing on from those who dealt in these various victuals, we must cast a glance at the sellers of hot food, especially at the cook-shops (*μαγειρεῖα*)<sup>2</sup> which were to be found in the Agora : perhaps the two cooks (*μάγειροι*) who occur in our inscriptions kept small restaurants of this class : on the other hand, it is possible that they were in domestic service, or that they were of the number of the professional cooks who had a stand in the Market where they were hired by those who wished to give fashionable dinners.<sup>3</sup> Near the cooks stood the flute-players (*αὐλητρίδες*)<sup>4</sup> also waiting to be hired for entertainments, and with them may have been found the freedwoman who is described as a *κιθαρῳδός*, though her residence in Epikephisia speaks against rather than for this supposition.

The perfume-market (*τὰ ἀρώματα*)<sup>5</sup> was largely frequented by the young swells, who often squandered large sums there : a special department of this was the place where frankincense was sold (*ὁ λιβανωτός*).<sup>6</sup> In our inscriptions we find a woman engaged in this trade (*λιβανωτόπωλις*) resident close to the Market, in Melite, a man in Peiraeus, and a third frankincense-seller of uncertain deme.

Further there was the wool-market, where perhaps some of the *ταλασι-ουργοί* of whom we have spoken sold their own productions ; there was the clothes bazaar,<sup>7</sup> the pottery-market (*αι χύτραι*)<sup>8</sup> and the metal-market (*τὰ χαλκᾶ*)<sup>9</sup> where in all likelihood our *σιδηροπώλης* is to be sought. Before leaving the *ἀγορά* we must notice the slave-market (*τὰ ἀνδράποδα*)<sup>10</sup> where the dealers exhibited their human wares, and the book-stalls set up on the 'orchestra,' the raised space around the statues

<sup>1</sup> Moeris *s.v.* *σήσαμα*.

<sup>2</sup> Wachsmuth *I.c.* 483. Pollux ix. 48 explains the word differently, as the places where cooks were hired.

<sup>3</sup> Cf. Plaut. *Aulul.* 280 f. postquam obsonavit erus et conduxit coquos | tibicinasque has apud forum. Wachsmuth, *I.c.* 491; Becker, Charikles ii. 318 foll.

<sup>4</sup> Plaut. *loc. cit.*; Theophylact. *Eρ.* 12; Theophr. *Char.* 11.

<sup>5</sup> Pollux ix. 47 (quoting Eupolis) *περὶ ἡλθον εἰς τὰ σκόροδα καὶ τὰ κρέμμυδα | καὶ τὸν λιβανωτόν, κεῦθν τῶν ἄρωμάτων.* Athenaeus xv. 691c.

<sup>6</sup> Athen. ix. 374B. Pollux *I.c.*

<sup>7</sup> Pollux vii. 78 *ἐκαλεῖτο δέ τις Ἀθηνῆσιν ιματιόπωλις ἀγορά.* According to an almost certain restoration of Wilamowitz-Moellendorff, we have in *C.I.A.* ii. 772B 2 [ἀ]κέστριαν (female tailor) a word which occurs in Lucian, *Rhet. Praec.* 24.

<sup>8</sup> Pollux ix. 47; Aristoph. *Lys.* 557.

<sup>9</sup> Bekker, *Anecdota Graeca* i. 316. 23. Wachsmuth, *op. cit.* i. 180,

<sup>10</sup> Pollux x. 19. Wachsmuth, *I.c.* 462, n. 2, 490, n. 2.

of Harmodios and Aristogeiton.<sup>1</sup> We have referred above to those who are denominated simply *κάπηλοι-ίδες*: it is possible that these kept the wine-shops in or near the Agora and in Peiraeus,—the word can certainly bear such a meaning<sup>2</sup>: but it is more probable that the *κάπηλος* was the ancient counterpart of the modern *bakalis*, whose shop, a blend of a grocery store with an eating and drinking house, bears the delightfully comprehensive name of *παντοπωλεῖον*. Finally we may notice the barber (*κουρεύς*)<sup>3</sup> given us by the inscriptions published below: his residence is probably Melite.

The wants of a great city necessitate a large amount of transport, which gives employment to a considerable number of men, especially where our modern transport facilities are unknown. We are thus prepared to find in our inscriptions two muleteers (*όρεωκόμοι*<sup>4</sup>), one in Lakiadai, a deme on the Eleusis road famed for its gardens, amongst which were those of Kiron, and for its unrivalled radishes; the other in Peiraeus, perhaps engaged in the transport of merchandise between the seaport and the capital. Two others drove donkeys (*όνηλάται*<sup>5</sup>), both of them living in the city, one in Diomeia, the other in Kollytos. Perhaps their business was to bring to market the produce of the flocks and fields of their patrons, demesmen of Kephisia and Aphidna respectively. We also find two porters (*φορτηγοί*<sup>6</sup>), a jar-carrier (*άμφορεαφόρος*<sup>7</sup>) and a skin-carrier (*άσκοφόρος*<sup>8</sup>). Those who have seen the long succession of carts

<sup>1</sup> Wachsmuth, *l.c.* 488.

<sup>2</sup> Pollux vii. 193; Lucian, *Hermot.* c. 58. Cf. Suid. and Etym. Magn. s.v. The *κάπηλοι* were proverbially knavish, as we learn from Greek writers from Aeschylus downwards; Wallon (*Mém. de l'Acad. des Inscr. et Belles-Lettres* vol XIX. 2, p. 271. n. 2), calls attention to the fact that 'chez les chrétiens, le métier de *κάπηλος* fut regardé comme tellement vil, qu'il était défendu à l'évêque d' accueillir l'offrande de ceux qui l'exerçaient (*Constit. apost.* iv. 6, t. i. p. 294).'

<sup>3</sup> In Plato, *Resp.* ii. 373C the *κουρεῖς* appear in company with *παιδαγωγοί*, *τίτθαι*, *τροφοί*, *κουμάτραι*. Plut. de *Gariul.* 509A, refers to their proverbial talkativeness, which is also alluded to in Archelaus' celebrated reply preserved in Plut. *Apophthegm.* p. 177A 'Αδολέσχου κουρέως ἐρωτήσαντος αὐτὸν 'πῶς σε κείρω'; 'σιωπῶν' ἔφη. Cf. Athen. iii. 98E; Aristoph. *Plutus*, 338; *Av.* 1441.

<sup>4</sup> Aristoph. *Thesm.* 491; Xen. *Hell.* 5. 4. 42; Plut. *Mor.* 130E; Plato, *Lysis*, 208B, etc.

<sup>5</sup> [Dem.] xlvi. p. 1040. 28; Plut. *de cohib.* *ira* 461A; Pollux vii. 56. 148; Macho. *ap.* Athen. 582C.

<sup>6</sup> Pollux vii. 131 τῷ φορτηγῷ ἐπὶ τῶν τὰ φορτία ἀγόντων ἐμπόρων κέχρηται Αἰσχύλος.....φόρτας μέντοι ἡ παλαιὰ κωμῳδία τοὺς ἀχθοφοροῦντας ἐκ τοῦ ἐμπυρίου καλεῖ. Cf. Lycophr. 1293 φορτηγοὶ λύκοι.

<sup>7</sup> Moeris, s.v.; Suid. s.v. δεκτήμα μισθοῦ φέρων. The latter quotes Menander 'Ραπιζομένη for ἀμφορεαφόρος (I do not understand why it appears as an adjective in L. and S.) and Aristophanes 'Ηρωες for ἀμφορεαφορεῖν (Arist. *Frag.* 285. 3). Neither L. and S. nor the Thesaurus refers to Pollux vii. 130.

<sup>8</sup> 'Ασκοφόρος, ἀσκοφορεῖν occur only in Bekker *Anecd. Graec.* 214; Etym. Magn. p. 155;

laden with amphorae of water filing into Athens in the dim dawn from Marusi and Kaisariani will not be at a loss for a suggestion as to these men's employment, but we must leave it undecided whether it was water, wine, or some other substance which filled the jars and skin bottles of these two porters. We have also a labourer (*μισθωτός*), whose deme is wanting: we may conjecture that he was one of those who stood for hire at the Euryssakeion in the "Market Kolonus," and received in consequence the nickname Κολωνέτα<sup>1</sup>.

We have now briefly reviewed the industry, agriculture, and trade of Athens so far as presented or suggested to us by the inscriptions under consideration: it only remains to indicate the several occupations which have not been included in the foregoing sketch.

A large number of slaves was, of course, used for domestic purposes, and it would be surprising if none of these appeared as freedmen. We meet with one manservant (*διάκονος*<sup>2</sup>) and two nurses (*τίτθαι*<sup>3</sup>): both of these latter are domiciled in Skambonidai, and one is described as *παιδί(ον)* *τίτθη*. This leads us to mention the numerous freedwomen<sup>4</sup> described merely by the title *παιδίον*, who in all probability acted as domestic servants. Excluding the case just referred to, we have altogether fifteen such *παιδία*, who thus form a class outnumbered only by the wool-spinners: they are distributed over the demes Peiraeus (4), Skambonidai (3), Keiriadai (2), Melite, Kollytos (?), Thorikos, and Xypete—the demes of the remaining three being unknown. Of these all except Thorikos are urban or suburban demes.

We have, further, two freedmen plying the pen, in all probability as secretaries to magistrates: one of these, in Thorikos, is called *γραμματεύς*, the other, resident in Kollytos, is but a *ὑπογραμματεύς*. The office was one despised by the Athenians, as is sufficiently clearly evinced by Demosthenes' use of the term in scorn<sup>5</sup>: nevertheless it sometimes

Suid. s.v.: Τὸν ἐν ταῖς Διονυσιακαῖς πομπαῖς τοὺς ἀστοὺς...ἀσκοὺς κατὰ τῶν ὄμων φέρειν, καὶ οἱ τοῦτο ποιοῦντες ἀσκοφόροι καλοῦνται (Bekker l.c.).

<sup>1</sup> Hippocrat. s.v. Κολωνάτας (s. Κολωνέτας): Wachsmuth *op. cit.* i. 177 foll. ii. 277. Plato, *Rcp.* ii. 371E; *Polit.* 290A; Aristoph. *Av.* 1152.

<sup>2</sup> The word bears the sense of messenger in Aesch. *Prom.* 942; Soph. *Phil.* 497; Aristot. *Eth.* *N.* vii. 6 *καθάπερ οἱ ταχεῖς τῶν διακόνων, κ.τ.λ.* It appears to be used for one who waits at table in Athen. x. 420E *τὸν οἰνοχόον, τὸν διάκονον, τὸν μάγειρον.*

<sup>3</sup> See note on inscription no. IV. iii. l. 16.

<sup>4</sup> In one case only, I believe, is the term used for a boy—Insc. VI. ii. 10. 11.

<sup>5</sup> *De Cor.* xviii. 162, p. 269. 20; *de fals. leg.* xix. 109, p. 371. 21 *πανούργος καὶ θεσίς ἔχθρος καὶ γραμματεύς*: *Lept.* xx. 178, p. 506. 20.

happened that one who had occupied this lowly office rose to a position of trust and responsibility in the state. Most famous, perhaps, is the case of Nikomachos who, in the words of Lysias,<sup>1</sup> ἀντὶ μὲν δούλου πολίτης γεγένηται, ἀντὶ δὲ πτωχοῦ πλούσιος, ἀντὶ δὲ ὑπογραμματέως νομοθέτης.

Finally, we have the curious term *ζευγοτρόφος*,<sup>2</sup> one, that is, who keeps a yoke of beasts. What these were—whether they were oxen or, as seems more probable, horses—we are not told, nor do we learn for what purpose they were used, whether they served for ploughing, or transport, or as carriage or even race horses.

## I.

On the reverse side of the same block upon which is inscribed *C.I.A.* iv. 2. 768 c [C. D. Buck in *Amer. Journ. Arch.* 1888, p. 149 foll.; Lolling in *Sitzungsber. der Berl. Akad.*, 1888, p. 251]. Letters small and somewhat irregularly formed, but well and clearly incised.

ΟΙΚ. ΦΙΛ. Π

E      ΜΙΣΓΟΛΑΣΝΑΥΚΡΑΤΟΥΣΚΟΛ  
      ΛΥΝΑΥΚΛΗΣΝΑΥΚΡΑΤΟΥΣΚΟΛ

I      ΗΔΙΣΤΗΝΠΑΙΔΙΟΝΕΣΚΑΜΟΙΚ

5      ΦΙ:Η  
      ΤΙΜΟΣΤΡΑΤΟΣΣΜΙΚΡΙΟΥΣΦΗΤ  
      ΡΑΙΟΝ<    ΧΙΣΤΗΝΣΦΗΤΤΟΙ

ΑΜΦΙΛΟΥΦΥΛΑΣ  
-ΙΩΦΙΛΟΥΦΥΛΑ  
ΤΑΛΑΦΙ:Η

ΤΑ

-ΜΜ

<sup>1</sup> xxx. 36. Cf. Antiphon. vi. 35.

<sup>2</sup> The word occurs only in Plut. *Peric.* 12 οἱ δὲ κατὰ γῆν ἀμαξοπῆγοι καὶ ζευγοτρόφοι καὶ ἡνιοχοὶ καὶ καλωστρόφοι καὶ λινουργοὶ καὶ σκυτοτόμοι καὶ δδοποῖοι καὶ μεταλλεῖς: it is to be noticed that the company in which they here appear is far from being aristocratic. The verb *ζευγοτροφῶ* appears in Pollux viii. 132 ζευγήσιόν τι τέλος οἱ ζευγοτροφοῦντες ἔτέλουν.

In reviewing the various occupations mentioned in the 'catalogi paterarum argentearum,' I have purposely omitted the *στιχιστής* of Inscr. I. 7, being unable to say anything as to his function, and feeling uncertain of his very existence.

οἰκ(οῦ -) : φιά(λην) : Ή  
**Μισγόλας Ναυκράτους Κολ-**  
**λυ(τεύς) Ναυκλῆς Ναυκράτους Κολ(λυτεύς)**  
 'Ηδίστην παιδίον ἐ Σκαμ(βωνιδῶν) οἰκ(οῦσαν)  
 5 **φι(άλην) : Ή**  
**Τιμόστρατος Σμικρίου Σφήτ(τιος)**  
     - ]ραιον σ - χιστην Σφηττοί  
**[οἰκ(οῦντα) φι(άλην) : Ή]**  
     - - - Π]αμφίλου Φυλάσ(ιος)  
 10   - - - ]ς Ζωφίλου Φυλά(σιος)  
     - - - - ταλα(σιουργὸν) φι(άλην) : Ή

l. 2. **Μισγόλας Ναυκράτους Κολλυτεύς.** Cf. *Aeschines* i. 41-53, 67. Antiphanes, Timocles, and Alexis quoted by Athenaeus viii. c. 22, 339 b. c. Suid. **Μισγόλας** and **Τίμαρχος**, *C.I.A.* ii. 1177 [Loewy, *Insch. Griech. Bildhauer*, No. 77].

Suidas' gloss (*s.v. Μισγόλας*)—οὗτος ἦν τοῦ Λεωδάμαντος ἐρώμενος—for which no authority is quoted, must surely be an error: it may perhaps have arisen from a misreading of the words of the gloss *s.v. Τίμαρχος*—Μισγόλᾳ καὶ Ἡγησάνδρῳ τῷ Λεωδάμαντος ἐρωμένῳ—which are in accordance with *Aeschines* i. 68-70, 111. Athenaeus' quotations prove that Misgolas was a favourite butt of the comic poets for his inordinate fondness for musicians and singers.

*Aeschines* (i. 49) refers to him as ἡλικιώτης ἐμὸς καὶ συνέφηβος, and states definitely that ἔστιν ἡμῖν τοντὶ (*Ol.* 108. 3=345 B.C.) πέμπτον καὶ τεσσαρακοστὸν ἔτος. It is improbable that the present inscription refers to a date much, if at all, later than that year, and with this conclusion the evidence of *C.I.A.* ii. 1177 is in agreement. We have there the inscription from the base of a statue by the famous sculptor Leochares: the actual dedication is lost, but there remains a list of ten Athenian citizens—one representative of each of the ten φυλαὶ—and two γραμματεῖς, and the artist's signature: Misgolas appears as the representative of the tribe Αἰγῆς. In the absence of the dedicatory inscription there is, unfortunately, no indication of the nature of the decemviral college in question. The date of that inscription is fixed roughly by the character of the writing ("Titulus exaratus est medio saeculo quarto vel paullo post"—Koehler); by the name of the artist, who, although he lived as late as the reign of Alexander the

Great, seems to have worked after 350 B.C. mostly out of Athens; and by the names of two or three of the other members of the decemvirate, which are known from other sources (cf. Loewy, *I.c.*).

In the *μαρτυρία* of *Aeschines* i. 50 Misgolas is wrongly described as Μισγόλας Νικίου Πειραιεύς.

In *Aeschines* i. 42 he is referred to as older than Timarchus (*οὐθ' ἡλικιώτης . . . πρεσβυτέρῳ ἑαυτοῦ*): if, then, Misgolas was in his forty-fifth year at the time of Timarchus' trial (see above), some error must underlie Suidas' statement (*s.v. Τίμαρχος*) that Timarchus ἦλω ὑπὸ Αἰσχίνου γέρων ὥν.

l. 4. No other instance of a *παιδίον* in Skambonidae occurs in this class of inscriptions, except in *C.I.A.* iv. 2, 772 b, p. 188, A. col. 2, l. 8, where I believe, after an examination of the stone, that the true reading is . . . ΒΩ rather than . . . ΕΛ. With the reading of the *Corpus* the only possible restoration is ἐ[ν] Πεντελεῖ(ν), for Δεκέλεια and Ἀγγελή are too short to fill the required space: but Πεντελή is an unlikely deme in itself, and moreover Πεντελῆσιν would probably stand in the place of ἐν Πεντελῇ.

l. 7. Σ-χιστην. The inscription not being *στοιχηδόν*, the interval between the initial Σ and the X may have been occupied by either one or two letters, but in the latter case one at least of the two must occupy a very small space. There is no Greek word of the form *σ.χιστής*, and of the form *σ..χιστής* only one, *στιχιστής*, which is found in Tzetz. *ad Lycophr.* 425, meaning 'one who writes in verse,' 'a poet': the use of the word is condemned by Thomas Magister, 463 (ed. Oudendorp). The verb *στιχίζω*, 'to write verse,' 'to be a poet,' occurs Anon. in *Fabric. Bibl. Gr.* Vol. VIII., 613 note (ed. Harles.), and in Theodorus Ptochoprodromus ii. 16 (Coray's *Atakta*, Vol. I.). 'Στιχισμός ap. Isidor. Pel. 3. 86 a Boiss. citatum, ubi Zosimum monet, ut accurate sibi indicet τὸν στιχισμὸν τῶν βιβλίων, esse, Numerum στίχων sive Versuum, non, quod Int. putavit, seriem seu ordinem librorum, animadvertisit Fabric. B. Gr. Vol. 8, p. 72 Harl. Conf. Tzetz. *Hist.* 9. 291.'—L. Dindorf in *Thesaurus* 780 b.

The meaning of *στιχιστής* in the fourth century B.C. (if, indeed, it is to be here restored) is uncertain: probably it denotes one who had some duty to perform in connection with the production of books.

Σφηττοῖ. This locative form does not occur in the *C.I.A.*, but is

found in *Aeschines* i. 97; *Lys.* 17. 8; cf. 17. 5; Steph. Byz. s.v. Cf. Ἀθμονοῖ, Κολωνοῖ, Θορικοῖ, Φαληροῖ, etc., and the more remarkable Παιανοῖ from a substantive with *a*-stem. See Meisterhans, *Gramm. der Att. Inschr.*<sup>3</sup> p. 147, note 1269.

I. 10. The name Ζώφιλος does not seem to occur elsewhere, but it may well have existed side by side with the known Σώφιλος in the same way as Σωίλος with Ζωίλος, Σώπυρος with Ζώπυρος, etc.

## II.

On a block of bluish marble, greatest height, .11 m.; greatest breadth, .165 m.; thickness, about .122 m. As far as the end of line 9 the letters are fairly large and are carefully inscribed; afterwards they are smaller and more irregular.

ΛΩΜΟΙ

ΠΕΙΡΑΙΕΙ

ΓΟΣΑΠΟΦΥΓ

ΣΜΙΚΥΛΙΩΝ

5

· Η Ν Σ Τ Α Θ Μ Ο Ν : Η

Δ Ω Ρ Ο Σ Ε Μ Π Ε Ι Ρ Α Ε I

Υ Γ Ω Ν Λ Υ Κ Ι Σ Κ Ο Ν

Υ Λ Ι Ω Ν Ο Σ Α Θ Μ Ο Ν Ε Α

10 Ι Α Λ Η Ν Σ Τ Α Θ Μ Ο Ν : Η

Ω Ρ Λ Ε Μ Π Ε Ι Ρ Α Ε I O II

Φ Υ Ι Γ Ο Υ Σ Λ Λ Υ Κ Ι Σ V

Κ Υ Λ Ι Ω Δ Ο Σ

Φ Ι Α Λ Η Ν Σ Τ

15 Α Γ Χ Γ // / /

Σ Ι Ο Ι // / /

Ω Ν I

φιάλην στ]αθμόν[ : Ή  
 - - - - - ἐμ] Πειραιεῖ [οἰκ-  
 - - - - - ]ος ἀποφυγ[-  
 Δυκίσκον] Σμικνλίων[ος  
 5 'Αθμονέα]  
 φιάλην σταθμόν : Ή  
 - - - - - ]δωρος ἐμ Πειραιεῖ [οἰκῶν  
 ἀποφ]υγῶν Δυκίσκον  
 Σμικ]υλίωνος 'Αθμονέα  
 10 φ]ιάλην σταθμόν : Ή  
 - - - ]ώρα ἐμ Πειραιεῖ οἰκ[οῦσα  
 ἀπο]φυγοῦσα Δυκίσκον  
 Σμι]κυλίωνος ['Αθμονέα  
 φιάλην στ[αθμόν : Ή

We possess (*C.I.A.* ii. Pt. i, 580) a decree of the Athmonenses in honour of the *μερύρχαι* of the year 324-3 B.C., among whom appears one *Δυκόφρων Δυκίσκον*, who may be the son of *Δυκίσκος Σμικνλίωνος*. It is possible that this was the *Δυκίσκος* who was archon in 344-3 B.C.; the date would tally well, but the name is a common one and there is no evidence to support the conjecture.

### III

On the face of a slab of bluish-white marble, broken on all sides; greatest height .205 m.; greatest breadth .37 m.; thickness .115 m. Inscribed on front and back. Found on the Acropolis in 1894. The writing is *στοιχηδόν* and fairly careful: height of letters .004-.006 m.

\ε̄γ̄/ \ῡ < λ

ΥΝΘΙΦΙΑΛΣΤ /

ΚΥΠΟΔΗΜΑΤΟΓΑΠΟ

ΚΑΛΛΙΠΙΔΗΝΚΑΛΛΑ

ΟΥΑΦΙΔΦΙΑΣΓΑΘΩ:

ΔΙΟΝΥΣΙΟΣΕΝΚΛΩ

ΚΓΕΩΡΓΟΛΠΟ (ΓΩΝ

ΣΑΝΟΜΙ-ΗΝΙ-ΙΞΩΣ

ΡΑΤΟΚΗΦΙΦΙΑΣΤΑΘΩ:

ΠΟΛΥΤΙΜΟΣΕΝΚΟΛΛΥ

ΟΙΚΣΚΥΤΟΑΠΟΦΥΓ

ΚΑΛΛΙΑΝΚΑΛΛΙΑΔΟΥ

ΠΑΙΑΝΙΕΦΙΑΛΣΤΑΘΩ:

ΛΑΜΗΡΙΣΕΝΣΚΑΜΟΙΚ

ΟΥΣΤΤΟΗΑΠΟΦΥΓΟΥ

ΑΡΙΣΤΟΦΑΝΤΑΡΙΣΤΙ

ΩΝΟΑΦΙΔΦΙΑΛΣΤΑΘΩ:

ΕΥΠΕΙΘΗΠΑΙΔΙΤΙ

ΕΝΣΚΟΙΚΟΥΑΠΟΦΥΓΟ

ΑΡΙΣΤΟΦΑΝΤΑΡΙ-ΤΙ

ΣΥΦΡΟΝΑΕΥΟΥΚΛΕ

ΔΗΜΟΣΤΑΗ

ΡΦΙΑΛΣΤΑΟΙΚ

ΣΕΝΚΥΔΑΟΙΚ

ΖΟΧΟΑΠΟΦΥΓΩΝ

ΥΦΡΟΛΕΦΙΑΖΤΑΘΩ:

ΒΩΝΕΜΜΕΛΟΙΚΩΔΑΚ

ΤΥΛΙΟΓΛΥΑΠΟΦΥΓΩΝ

ΧΑΙΡΙΠΠΟΝΧΑΙΡΕΔΗ

ΜΟΥΛΛΑΙΕΚΑΙΚΟΙΕΡ

ΑΝΙΤΩΝΜΕΤΑΧΑΙΡΙΠ

ΠΟΑΛΙΕΦΙΑΛΣΤΑΘΩ:

ΩΦΕΛΙΩΝΕΝΚΟΛΛΥΟΙ

ΚΩΚΛΙΝΟΗΑΠΟΦΥΓΩΝ

ΕΥΠΟΛΕΜΟΝΕΥΠΟΛΕΜ

ΩΝΑΦΙΔΝΦΙΑΛΣ

ΦΥΝΖΕΝΚΟΛ

ΔΥΖΕΝΚΑΛΛΙΑΛΣΤΑ

IO

15

20

25

30

Col. I. l. 18. οἰκ | [ῶν - - - ἀποφυ] γὰν | [ - - - ρ]άτου | [ - - - φιάλ(ην) σ]-  
ταθμόν) : H

l. 23. οἰκῶν ἀποφυγ]ῶν | - - - νδον T | [ - - - φιάλ(ην) στ]αθμό(ν) : H

. 26. ἐγ] Κολλυ(τῷ) | [οἰκῶν ἀποφυγ]ῶν | - - - ράτο | [υ - - -

Col. IV. l. 12. Δορ[ - - - οἰκῶν ορ -οῦσα] | λιβα[νωτο(πώλης ορ -ις) ἀπο-  
φυγῶν ορ -οῦσα] | Στέ[φανον? - - - ] | ἐμ Π[ει(ραιεῖ) οι-  
κο(ῦντα) φιά(λην) στα(θμόν) : H]

## COL. II.

- 5 - - - - φιά(λην) στ]αθμόν) : H  
- - - - π(ώλης?) ἐν K-  
- - οἰκῶ(ν) ἀπ]οφυγῶν  
- - - - - Δημοστρά-  
του Φρε]άρ(ριον) φιάλ(ην) στα(θμόν) : H  
o - - - ]ος ἐν Κυδα(θημαίωι) οἰκ-  
ῶ(ν) χρυ]σοχό(ος) ἀποφυγῶν  
Πο]λύφρονα Εύθυκλέ-  
οντος Χολλε(ίδην) φιά(λην) σταθ(μόν) : H  
B[ι]ων ἐμ Μελ(ίτει) οἰκῶ(ν) δακ-  
5 τυλιογλύ(φος) ἀποφυγῶν  
Χαιριππον Χαιρεδή-  
μου 'Αλαιέ(α) καὶ κοι(νὸν) ἐρ-  
ανι(στῶν) τῶν μετὰ Χαιρίπ-  
πο(ν) 'Αλαιέ(ως) φιάλ(ην) σταθ(μόν) : H  
o 'Ωφελίων ἐν Κολλυ(τῷ) οι-  
κῶ(ν) κλινοπ(οιός) ἀποφυγῶν  
Εύπολεμον Εύπολέμ-  
ο(ν) 'Αγρυ(λῆθεν) φιάλ(ην) σταθμό(ν) : H  
Μοσχίων ἐμ Πειρ(αεί) ο[ικ-  
5 ω(ν) ἔμπορο(ς) ἀποφυγ[ῶν  
Δύκιν Βίωνος [Αχαρν(έα)  
φιάλ(ην) σταθμόν [: H  
Φιλονίκη τ[αλασι(ουργός)? ἐν  
Λευκο(νόη) οίκο[ῦ(σα) ἀποφυγ(οῦσα)  
o Δημοσθένην [Δημοφί-?  
λο(ν) Φυλά(σιον) [καὶ . . . ?  
ἀδου T . . .

## COL. III.

- 'Ολ]ύνθι(ον) φιάλ(ην) στα[θμόν) : H  
Πιστοκλῆς ἐμ Με[λ(ίτει) οι-  
κ(ῶν) ὑποδηματο(οιός) ἀπο[φυ(γῶν)  
Καλλιππίδην Καλλ[ι-  
ον 'Αφιδ(ναῖον) φιά[λ](ην) σταθμό(ν) : [H  
Διονύσιος ἐν [Σ]κα(μβωνιδῶν) ο[ι-  
κ(ῶν) γεωργὸ(ς) ἀπο[φ]υγῶν  
Φανομέ[ν]ην [κα]ὶ Σώσ[τ-  
ρατο(ν) Κηφ(σιέα) φιά(λην) σταθ(μόν) : H  
Πολύτιμος ἐν Κολλυ(τῷ)  
οἰκ(ῶν) σκυτοτό(μος) ἀποφυγ(ῶν)  
Καλλίαν Καλλιάδον  
Παιανιέ(α) φιάλ(ην) σταθ(μόν) : H  
Λαμπρὶς ἐν Σκαμ(βωνιδᾶν) οἰκ-  
οῦσ(α) τ[ι]τθη ἀποφυγοῦ(σα)  
'Αριστόφαντ(ον) 'Αριστί-  
ων(ς) 'Αφιδ(ναῖον) φιάλ(ην) σταθ(μόν) : H  
Εὐπειθη παιδί(ον) τίτθη(η)  
ἐν Σκ(αμβωνιδῶν) οίκοῦ(σα) ἀποφυγοῦ(σα)  
'Αριστόφαντ(ον) 'Αριστί-  
ων(ος) 'Αφιδν(αῖον) φιάλ(ην) σ[ταθ(μόν) : H  
Εὕν . . . σ ἐν Κολ[λυ(τῷ) οι-

Col. II. l. 9. Φρε]άρ(ριον), or, perhaps, Χολ]αρ(γέα). A Δημόστρατος 'Αρχίον (Φρεάρριος) appears in a funeral inscription of the fourth century (*C.I.A.* ii. 2657); a Δημοστράτη [Αν]τισθένους [Χολα]ργέως θυγάτηρ in a similar inscription (*C.I.A.* ii. 2201).

l. 11. We have two other instances of metic χρυσοχόοι resident in Κυδαθήγαιον—*C.I.A.* ii. 2. 741 add. B. 13, p. 511; and iv. 2. 772 b B i. 13 *sq.* In the latter case the reading of the *C.I.A.* is ΧΡΥΣΟΧΟΟΝ | . . . ΤΛΛΟΟΙΚ, but a closer examination of the stone shows that the true reading is ΧΡΥΣΟΧΟΟΝ | . . . ΤΔΛΘ, which confirms Scherling's conjecture [*έγ* Κ]υδαθ(*ηναλώι*) (cf. C. Scherling, *Quibus rebus singulorum Atticae pagorum incolae operam dederint*, in *Leipziger Studien*, 1898, p. 70). A confusion between Τ and Υ is a not uncommon error in inscriptions of this class: e.g., Τ occurs in place of Υ in *C.I.A.* ii. 2. 772 B col. i. l. 10; on the other hand, the stone shows ΤΑΧΥΛ and not ΤΑΧΤΛ in *C.I.A.* iv. 2. 775 b col. i. l. 8.

l. 14. B[*i*]ων, or possibly B[*ó*]ων. A second δακτυλιογλύφος, also resident in Melite, appears on the reverse of this stone (see No. IV. l. 6). For the term δ. Blümner (*Gewerbe und Künste*, Vol. III. p. 281) cites Diog. Laert. i. 2. 57 and viii. 1; Pollux, vii. 108, 179; Galen, xii. p. 205 K.; Suid. *s.v.* Πυθαγόρας; to which add Tzetz. *Hist.* vii. 212, xi. 68; Schol. Plat. p. 420 (Bekker); and Pollux ii. 155. Pollux refers to the word (ii. 155, vii. 179) as used by Critias and Plato; it does not, however, occur in the latter's works as we possess them.

l. 16. The identification of this Χαιριππος with the [X]αιριππος Χαιρ - - - of *C.I.A.* ii. 2. 775 B 2, 5 is rendered very probable by the fact that there also he appears in conjunction with a κοινὸν ἐρανιστῶν. For the formula κ. ἐρ. τῶν μετὰ τοῦ δεῖνος cf. *C.I.A.* iv. 2. 772 b p. 188 A col. ii. l. 23 *sq.* Α Χαιριππος 'Αλαιεύς occurs in *C.I.A.* ii. 2. 1020.

l. 21. Κλινοπ(οιός) or, possibly, κλινοπ(ηγός): cf. Blümner, *op. cit.* Vol. II. p. 326. The former seems preferable, as having earlier authority (Plato, *Rep.* x. 596 E *sqq.*, Dem. *in Aphob.* xxvii. 9, p. 816) than the latter, which occurs only in *C.I.Gr.* 2135 (a late inscription 'incerti in Aegeo loci') and Theognostus (fl. ca. 815 A.D.).

I. 26. In *C.I.A.* ii. 2. 770, 5 and 8 we have ΛΥΚΙΝ ΒΙΩΝΟΣ and in line 11 . . ΩΝΟΣ ΑΧΑΡΝΕΑ. A careful examination of the stone shows ΒΙΩΝΟΣ/ in l. 5 and ΩΝΟΣ in l. 11, which confirms the conjecture which can hardly fail to suggest itself that the person is the same in all three lines. In all probability the Λύκις Βίωνος of the present inscription is the same as that of *C.I.A.* ii. 770, and is related to Βίων Ἀχαρνεύς of the inscription published below, No. VI. col. ii. l. 15. A Σωκράτης Βίωνος Ἀχαρνεύς appears in *C.I.A.* iii. 1. 1113 a. [Βίων is omitted in Kirchner's *Prosopographia Attica*, Vol. I. p. 189].

I. 28. Cf. *C.I.A.* ii. 758 B ii. 4 (334 B.C.) Φιλονίκη χλανίδα ἐν κιβω(τίῳ) ράκος.

Col. III. l. 2. Ὁλύνθιον. Cf. Νικίαν Ὁλύνθιον, *C.I.A.* ii. 768, col. i. l. 25, and Κηρυκίδην Θηβαῖον iv. 2. 768 b A i. 5. The appearance of two Olynthians and a Theban in these inscriptions as plaintiffs is accounted for by the fact that they were ἴσοτελεῖς. Cf. Harpocration *s.v.* ἴσοτελής: ὅτι δὲ καὶ τῶν ἀλλων ὧν ἔπραττον οἱ μέτοικοι ἄφεσιν εἶχον ἴσοτελεῖς, Θεόφραστος εἰρηκεν ἐν ια' τῶν Νόμων · οὗτος δέ φησιν ὡς ἐνιαχοῦ καὶ πόλεσιν ὅλαις ἐψηφίζοντο τὴν ἀτέλειαν Ἀθηνᾶῖον, ὥσπερ Ὁλυνθίοις τε καὶ Θηβαίοις, where for ἀτέλειαν ἴσοτέλειαν should probably be read. Cf. Aeschines ii. 155, Schaefer Demosthenes ii.<sup>2</sup> 155. Among the plaintiffs we also find ἴσοτελεῖς in *C.I.A.* iv. 2. 768 c I. ll. 12, 16; 772 b B i. 10: δημόσιοι in *C.I.A.* iv. 2. 773 b A 33; 775 b col. iii. l. 17: πρόξενοι in *C.I.A.* ii. 772 B l. 16; iv. 2. 775 b i. 22 (cf. Wilamowitz in *Hermes* xxii. p. 239): a Πλαταιεύς (?) in *C.I.A.* iv. 2. 768 b B col. i. l. 1; and a Τροιζήνιος, *ib.* col. ii. l. 3. Cf. Hypereides v. c. *Athenog.* c. 33 ὑμεῖς (*τοὺς Τροιζηνίους*) ὑπεδέξασθε καὶ πολίτας ἐποιήσασθε.

I. 4. For another ὑποδηματοποιός cf. the inscription published below, No. VI. col. i. l. 12. We have three instances of metic *σκυτοτόμοι* in Melite—*C.I.A.* ii. 772 b i. 14; iv. 2. 768 c) ii. 11; 773 b A 34. The word ὑ. has hitherto been thought to belong to late Greek only: cf. Blümner, I. 271, L. and S., both of whom cite Chrysost. in Math. Homil. 49 (Vol. II. p. 317): ὑποδημάτων δημιουργός is used by Plato, *Gorg.* 447 D.

I. 9. The reading is very doubtful and the proposed restoration unsatisfactory, owing to the omission of the patronymic. It is similar to

Εὐτυχὶς καπηλὶς ἀποφυγοῦσα Σώστρατον Μνησίστρατον Ἀλωπεκῆθεν (*C.I.A.* ii. 2. 768, l. 16 f.), save that no patronymics are given throughout that inscription. Even where two brothers' names occur the father's name and the demotic are usually repeated, as, e.g., *C.I.A.* ii. 2. 770. 1f., 773 A col. ii. 28 f., and above No. I. l. 2 f. The letters ΗΝ and ΣΩΣ are certain. The name Φανομένης does not seem to occur, but may be justified by the analogy of Φανόδικος, Φανοκλῆς, Φανόκριτος, Φανόμαχος, etc.

I. 13. A Καλλίας Καλλαῖσχρον Παιανιεύς occurs in a fourth century funeral inscription, *C.I.A.* ii. 3. 2410: also a Καλλίας Παι(ανιεύς) as πρύτανις in 209–10 A.D. (*C.I.A.* iii. 1. 10).

I. 16. Τίτθη: cf. I. 19 below. All τίτθαι were non-burghers: a citizen who acted in that capacity was liable to have her burgher rights attacked, Dem. lvii. 42 ff. 45. See *Die griechischen Privataltertümer* by Iwan von Müller, ed. 2, § 94, p. 163, note 2, in Iwan Müller's *Handbuch der Klassischen Altertums-Wissenschaft*.

I. 19. Εὐπείθη. Dr. Wilhelm has called my attention to a parallel case: in Latyshev, *Inscriptiones Orae Septentrionalis Ponti Euxini*, Vol. IV. No. 376,—a funeral inscription of the first quarter of the fourth century B.C.—we have 'Ιπποκράτη 'Ηρακλειδέω, where 'Ιπποκράτη is a feminine nominative. Latyshev compares 'Ηγεκράτη in Bechtel-Fick, *Die Griechische Personennamen*,<sup>2</sup> p. 174.

I. 23. Probably Εὖν[ομο]ς or Εὖν[ικο]ς.

IV.

On the reverse side of the same block on which is inscribed the preceding. The writing is not *στοιχηδόν*, and is much less careful than on the face of the stone, being very similar to that of I.

$$Y \in Y_\Omega$$

ΛΟΙΚΚΟΥΡΕΦΙ : Η

ΗΡΑΤΟΥΜΕΛΙΤ

ΣΩΣΙΔΗΜΟΥΞΥΠ

## ΕΜΜΕΛΙΤΗΙΟΙΚΔΑΚΤΥ

ΗΡΑΤΟΣΝΙΚΗΡΑΤΟΥΜΕΛ

ΙΔΙΠΠΟΣΣΩΣΙΔΗΜΟΥΞΥΡ

ΙΟ ΝΟΝΑΠΑΙΔΙΟΝΕΜΜΕΟΙΚΦΙ : Η

ΝΙΚΗΡΑΤΟΣΝΙΚΗΡΑΤΟΥΜΕΛΙ

ΦΕΙΔΙΠΠΟΣΣΩΣΙΔΗΜΟΥΞΥΓΡΕ

ΣΤΡΑΤΟΝΙΚΗΝ ΜΜΕΛΟΙΚΤΑΛΑ

15 Υ ΝΙΚΗΡΑΤΟΣΝΙΚΗΡΑΤΟΥΜΕΛΙΤ

Η ΦΕΙΔΙΠΠΟΣΣΩΣΙΔΗΜΟΥΞΥΡΕΤ

**ΑΡΙΑΝΘΗ ΝΕΜΜΕΟΙΚΤΑΛΑΦΙ : Η**

ΛΥΣΙΑΔΗΣΧΙΩΝΟΣΑΛΩΠΕΚ

ΣΩΣΤΡΑΤΗΝΤΑΛΑΣΙΟΥΡΓΕΜΜΟΙΚ

中：H

ΑΛΛΙΑΣΚΑΛΛΙΚΡΑΤΟΥΣΑΦΙΔ

ΣΤΟΝΕΓΚΟΛΛΥΟΙΚΟΝΗΦΙ: Η

ΛΗΣΑΡΙ-ΤΟΦΑΝΟΥΣΑΧΑΡ

۱۳۴

20YP+I:H

25

ΟΥΑΕΥ

十一

- - - - λ( - ) οἰκ(οῦντα) κουρέ(α) φι(άλην) : H  
 Νικήρατος Νικ]ηράτου Μελιτ(εύς)
- 5 Φείδιππος] Σωσιδήμου Ξυπ(εταιών)  
 - - - ] ἐμ Μελιτηι οἰκ(οῦντα) δακτυ(λιογλύφον)  
 φι(άλην) : H]  
 Νικ]ηράτος Νικηράτου Μελ[ιτ(εύς)  
 Φείδιππος Σωσιδήμου Ξυπ(εταιών)
- 10 - - νονα παιδίον ἐμ Με(λίτηι) οἰκ(οῦσαν) φι(άλην) : H  
 Νικήρατος Νικηράτου Μελιτ(εύς)  
 Φείδιππος Σωσιδήμου Ξυπε(ταιών)  
 Στρατονίκην ἐμ Μελ(ίτηι) οἰκ(οῦσαν) ταλα(σιουργὸν)  
 φιά(λην) : H
- 15 Νικήρατος Νικηράτου Μελιτ(εύς)  
 Φείδιππος Σωσιδήμου Ξυπετ(αιών)  
 'Αριάνθην ἐμ Με(λίτηι) οἰκ(οῦσαν) ταλα(σιουργὸν) φι(άλην) : H  
 Λυσιάδης Χίωνος 'Αλωπεκ(ῆθεν)  
 Σωστράτην ταλασιουργ(ὸν) ἐμ Μ(ελίτηι) οἰκ(οῦσαν)
- 20 φι(άλην) : H  
 Κ]αλλίας Καλλικράτους 'Αφιδ(ναῖος)  
 - ] στον ἐγ Κολλυ(τῶι) οἰκ(οῦντα) ὄνη(λάτην) φι(άλην) : H  
 - - ] λης 'Αριστοφάνους 'Αχαρ(νεύς)  
 - - - ἐμ Μ[ελ(ίτηι) οἰκ - -]ουρ(γὸν) φι(άλην) : H
- 25 - - - - - - - - - - ου Λευ(κονοεύς)  
 - - - - - - - - - - φι(άλην) : H

l. 1. Perhaps . . o]ν Εὐω(νυμεύς). The letters in l. 1 are considerably larger than those of the rest of the inscription.

l. 6. Δακτυλιογλύφος : cf. III. col. ii. l. 14 (and note).

l. 12. A Φείδιππος Ξυπεταιών occurs three times in the *Tabulae Curatorum Navalium*: C.I.A. ii. 2, 793 g, 14 (357-6 B.C.); 794 d, 22 (356-5 B.C.); 808 c, 111 (340-39 B.C.): cf. 809 d, 248 (340-39 B.C.), where the name, though it does not occur on the stone as preserved, must be restored.

I. 18. Λυσιάδης Χίωνος Ἀλωπεκῆθεν occurs in a sepulchral inscription, *C.I.A.* ii. 3. 1818. A Χίων was eponymous archon in 365-4 B.C., but his deme is unknown.

I. 22. ὄνηλάτην: cf. *C.I.A.* iv. 2 b, p. 188, A, col. ii. l. 3.

## V.

On a fragment of white marble. Maximum height .04 m.; max. breadth .12 m.; max. thickness .041 m. The writing is careful and the letters are well formed.

Η  
ΙΣΑΛΠΟΦΥΓΟ  
ΩΝΙΔΗΝ  
ΟΜΩΝ:Η  
5 ΑΧΑΡΝΗΣΙΝΟ  
ΓΩΝΠΑΝ

φιάλην σταθμόν:] Η  
- - - οἰκοῦ]σα ἀποφνύο[ῦσα  
- - - - - Παι]ονίδην  
φιάλην στα]θμόν: Η  
- - - Ἄχαρνῆσιν ο[ἰκῶν  
ἀποφν]γὼν Παν - - -

## VI.

A slab of bluish marble, broken on three sides: found on the Acropolis. Greatest height .21 m.; greatest breadth .29 m.; thickness ca. .087 m. Writing small and very careless, many letters being only half formed.

Α /

ΕΦΙ  
ΙΟΥ>  
ΔΗΜΗ  
ΣΟΙΚΟΥ  
ΜΟΝΚ  
ΧΡΥΣ  
ΚΟΥΣ  
ΦΥΓΕΙ  
ΙΟΕΜ  
ΑΓΑΘ  
ΟΙΚΩ  
ΚΑΤΑΓ  
ΟΙΚΣ  
15ΕΥ  
ΟΙΚΩΝ  
ΣΩΤΗΡ  
ΣΙΚΟΥ  
ΕΥΑΛ  
ΠΟΙΚ  
ΟΙΚΩΝ  
20ΠΟΙ  
ΟΙΚΩΝ  
ΚΛΕΙ  
ΥΣΑΧ  
ΥΚΡΑ  
ΙΩΝΑ  
ΙΑΝΑ  
ΝΑΜΦ  
ΙΟΥ>

ΝΥΞ·

ΛΑΡΓΕΑ

ΡΙΑΕΜΜΕΛΙΗ

ΣΔΗ

ΦΙΣΙΕΑ

ΣΕΜΜΕΛΙΤΕΙΟ

ΙΟΥΡΑΠΕ

ΟΝΑ

ΙΤΕΙΟΙΙ

ΥΝΤΑ

ΓΙ

ΥΤ

ΤΟ

ΛΦ

ΙΟ

ΙΕΜΜΕΛΙΤ

Α

ΤΑΛ

ΥΝΤΑ

Λ

ΕΝΗΣ

ΚΗΣΙΝ

ΑΠΕΦΥ

ΙΡΙΑ

ΙΟΓΝΗΤΟΝ

ΟΝΟΡΙΟΝ

ΖΕΝΖΥ

ΚΥΡΟ

ΙΑΙΤ

ΑΛΛΙΓ

ΙΑΙΡΙΠΠ

Ι

ΑΤ

ΝΚΑΛΛΙ

ΙΖΣΕΝ

Ι

ΛΧΑΡΝΕ

ΗΓΑΚΛΕΙΑ

ΙΓΕΙΣ

ΡΟΛ

ΥΡΓΟΣΕ

ΓΚΕΡΑ

ΑΠΕΦΥ

ΑΥΤΟΚΛΕΙΑ

ΟΥΠΙΘΕΙΑ

ΣΚΛΑ

ΙΑΝΔΡΟΣ

ΕΥΓΟΤ

ΡΟΦΟΣ

ΕΥΣΕΜ

ΠΕΙΡΑΙΟΙΚΩΝΑΛ

ΕΥΣΥΛΛΕΥΔΙΚΟΥΞΥΠΕ

Ι

ΟΝΟΥ

ΠΟΛΥΟΚΤ

ΑΤΟΥ

ΚΖ΢ΛΙ

ΦΙΛΟΟΡΟΣΕΜΠ

ΟΙΚΩΝ

ΠΛΙΔΙΟΝ

ΜΕΝΕΣΤΡΑΤΗΕΜΠΛΙΡ

ΟΙΚΟΤΑΛΑΣΙΟΑΠΕΦΥ

ΟΥΤΟΙΠΑΝΤΕΣΒΙΩΝΑ

ΑΧΑΡΝΕΙΑ

ΝΟΚΑΛΕΙΑΕΜΜΕΛΙΤ

ΟΙΚΟΑΠΕΙΥΚΑΛΛΙΓ

ΙΑΤΝΚΑΛΛΙΖΣΕΝΙ

ΙΚ

ΙΞΗΙ·

ΟΝΟΥ·

Υ

ΑΠΕΦ

ΙΚΟΥ

ΑΠΕΦ

ΙΚΟΥ

ΡΓΛΙ

ΙΚΛΙ

Λ

ΙΤ

ΙΚ

ΙΞΗΙ·

ΟΝΟΥ

Υ

ΑΠΕΦ

ΙΚ

ΟΝΟΥ

Υ

ΑΠΕΦ

ΙΚ

ΟΝΟΥ

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ΑΠΕΦ

ΙΚ

ΟΝΟΥ

Υ

ΑΠΕΦ

Ν

## COL. I.

## COL. II.

|  |                                       |
|--|---------------------------------------|
| έφ[υγε Διο]νυσ- - - -                        |                                       |
| ιον[ς Χο]λαργέα                              |                                       |
| Δημη[τ]ρία ἐμ Μελί[τ]η                       |                                       |
| 5 οίκον(σα) ἀπέφυγε Κ[λ]έδη-                 | Πολύοκτον - - -                       |
| μον Κ[η]φισιέα                               | άτον [έ]κ Σ[καμβωνιδῶ(ν) ?]           |
| Χρυσὶς ἐμ Μελίτει οἱ-                        | Φιλόθηρος ἐμ Π[ειρ(αεῖ)               |
| κούσα ταλασιουρ(γὸς) ἀπέ-                    | οίκων                                 |
| φυγε 'Ιερομνή[μ]ονα                          | Φιλοκράτης Φιλοθή(ρου)                |
| 10 οίκων(ν) ύπο[δ]η[μα]το(ποιὸς) [ἀπέ]φ(υγε) | παιδίον                               |
| Καταγώγιον ἐμ Μελίτ(ει)                      | Μενεστράτη ἐμ Πειρ(αεῖ)               |
| οίκοντα                                      | οίκο(ῦσα) ταλασιο(υργὸς) ἀπέφυ(γον)   |
| 15 Εύθυνος 'Αλωπεκῆσιν                       | οὗτοι πάντες Βίωνα                    |
| οίκων κάπηλος ἀπέφυ(γε)                      | 'Αχαρνεία                             |
| Σωτηρίδην ἐγ Κειρια(δῶν)                     | [Φ]ανόκλεια ἐμ Μελίτ(ει)              |
| οίκοντα Διόγυητον                            | οίκο(ῦσα) ἀπέφυ(γε) Καλλι[σ]τρ-       |
| Εὐάλκου Πόριον                               | ρατ[ο]ν Καλλισθέν[ον](ς)              |
| 20 Ποικίλτης ἐν Σκύροι                       | 'Αχαρνέ(α)                            |
| οίκων ἀπέφυγ[ε] 'Ανδρο-                      | 'Ηρακλεία . . . ιγειο-                |
| κλείδην 'Ανδροσθένο-                         | υργὸς ἐγ Κερα(μέων) ἀπέφυ(γε)'        |
| υς 'Αχαρνεία                                 | Αύτοκλεία Χαιρίππ-                    |
| [Ε]ύκρατης ἐγ Κεραμέω(ν)                     | ον Πιθεία                             |
| 25 [οἰ]κῶν ἀπέφυγε 'Αμφικ-                   | Σκάμανδρος (ζευγοτ-                   |
| [ήδη]ν 'Αμφικλέους Κεφ-                      | ρόφος ἐμ Πειραι(εῖ) οίκων ἡ[π](έφυγε) |
| [αλῆθε]ν                                     | Εὐθύμαχον Εὐδίκου Ξυπε[τ](αιόνα)      |

This stone is certainly a portion of the same stele as the fragment *C.I.A.* iv. 2, 776 c, p. 192. The character of the marble, of the writing, and of the formula used, as well as the equal thickness of the two fragments, puts the matter beyond doubt, and a further confirmation is given by the fact that on the right hand side of this stone is a surface smoothed for writing upon, of a breadth of .065 m., exactly corresponding to the surface upon which occurs the smaller inscription *C.I.A.* iv. 2, 776 c, though in the latter case on the right hand side, in the former on the left.

Col. I. l. 3. The remnant of the fourth letter still visible appears to me to belong rather to a **X** than to a **Ξ**; in that case we must suppose that the name ended with the **ΟΥ**, and that a fault in the stone compelled the engraver to write **X ΟΛΑΡΓΕΑ**. We have similar instances in O. Kern, *Inscriptions von Magnesia a. M.*, No. 21, l. 6 ('Vor dem 5. Buchstaben Lücke eines Buchstabens; alte Verletzung des Steines: ebenso hinter dem 9. Buchstaben.') and No. 105, l. 82 ('Zwischen καὶ und φανερόν Loch vor der Schrift.); also in *C.I.A.* ii. 2. 1048.9 (now in the British School at Athens) where a considerable fault in the stone intervenes between **τοῦ** and **Σελεύκου** and has also compelled the engraver to inscribe **ΥΜΥΡ** in l. 10 in smaller characters than the rest.

I. 5. **K[λ]έδημον.** Either **ε** stands for **ει** or, as I would judge almost more likely in view of the general character of the inscription, the **i** has been omitted by an error of the engraver.<sup>1</sup>

I. 12. **ὑποδηματοποιός.** Cf. No. III. col. iii. l. 4.

I. 20. It looks as if the engraver had first written a **Π** as second letter, and afterwards corrected it. The omission of the man's occupation may be intentional (cf. I. 5 above, col. ii. l. 18), or the name may have been directly derived from the occupation, the one title being used to designate both. For **ποικιλτής** cf. Aeschines i. 97, p. 14 (Pollux vii. 34), Arist. *Meteor.* 3. 4. 29, Hesych. s.v. **ποικιλεύς**. Blümner *op. cit.* i. 209. **Σκύροι** = **Σκύρω** is probably an intentional archaism: but see Meisterhans, *Gr. der Att. Insch.*<sup>3</sup> § 21. II.

I. 21. An **'Ανδροσθένης** **'Ανδροκλέος** **'Αχαρνεύς** occurs in a sepulchral inscription of the fourth century B.C. (*C.I.A.* ii. 1914) **'Α[νδροκλείδης]** **'Αχαρ(νεύς)** is restored by Kirchner (*Prosop. Att.* i. No. 849) as the name of a trierarch in *C.I.A.* ii. 812 b, 46. 53 (a 'tabula navalis' of about 323 B.C.):

<sup>1</sup> In the former case this would be one of the latest examples, if not absolutely the latest, of the representation of the pseudo-diphthong **ει** by a simple **E**. With reference to this pseudo-diphthongal **ει** Meisterhans (*Gramm. der Att. Inschr.*<sup>3</sup> § 10. 15. p. 20) says: 'Der Uebergang von der Schreibung **E** zu der heute üblichen Schreibweise **ΕΙ** vollzieht sich in einem mehr als zweihundertjährigen Zeitraum; denn die ersten, freilich ganz vereinzelten Spuren der diphthongischen Schreibweise führen in den Anfang des VI. Jahrhunderts hinauf: **'ΕΙμί** neben **μελεδανέν** (*Infinitiv*, c. 570 v. Chr.), und die letzten Spuren der monophthongischen Schreibweise lassen sich verfolgen bis in die zweite Hälfte des IV. Jahrhunderts: **ἀποδώσεν** (*Infinitiv*, 334 v. Chr.).' Cf. *C.I.A.* i. 437. 8 **κλεδεμός**.

a man of the same name occurs as a witness in [Demosth.] xlviii. The two may be identical with each other and with the Ἀνδροκλείδης of our inscription.

I. 23. For the form Ἀχαρνεία (cf. col. ii. l. 16; Αὐτοκλεία, col. ii. l. 23; Πιθεία, l. 24) see Meisterhans, *Gram. der Att. Inschriften*<sup>3</sup> § 15. 19 'Im IV. und III. Jahrh. v. Chr., besonders aber innerhalb der Jahre 350–300 v. Chr., wird, abweichend von der früheren Schreibung, ε vor Vokal vielfach durch ει dargestellt.' Among the instances quoted by Meisterhans is [*Aχa*]ρνεία in *C.I.A.* iv. 2. 776 c, A. 11, a fragment of the same inscription as our present one (see above).

Col. II. l. 15. For Βίων Ἀχαρνεύς, see No. III. col. ii. l. 26 and note. The formula ἀπέφν(γον) οὐτοι πάντες is unparalleled: the name of the plaintiff is usually repeated afresh in each item; once the same name occurs as many as five times in successive paragraphs (*C.I.A.* iv. 2, 772 b. p. 189, col. i. ll. 23, 25, 28, 30, 32). The paragraph, which I take to commence with l. 9, has other difficulties—the omission of Philotheros' occupation (but see note on col. i. l. 20), and the extraordinary item of ll. 11, 12, in which we have (1) the addition of Philocrates' father's name, the Philotheros just mentioned; (2) the consequent omission of the deme of residence; and (3) the designation of a male as παιδίον, not found elsewhere in this class of inscriptions.

I. 18. Α Καλλίστρατος Καλλιάδον Ἀχαρνεύς occurs in *C.I.A.* ii. 2, 660. 45, ii. 2. 661. Α Καλλίστρατος Ἀχαρνεύς appears as πρύτανις of the tribe Οἰνητοῖς in 360–59 B.C. (*C.I.A.* ii. 2. 868).

I. 21. For the accent, 'Ηρακλεία or 'Ηράκλεια, cf. Bechtel, *Die Attischen Frauennamen*, Göttingen, 1902, pp. 54 f., 59.

I. 23. Αὐτοκλῆς Χαιρίππου Πιθεύς appears again in *C.I.A.* iv. 2. 563 b, 25; at any rate, it is not improbable that the two are identical. Kirchner's entry (*Prosopogr. Att.* i. 2731, p. 182) is as follows: 'ΑΥΤΟΚΛΗΣ ΧΑ(Ι)ΡΙΠΠΟΥ (Ι) ΠΙΘΕΥΣ. iv. 2. 563 b, 25 ἔφηβος a. 334–3. Eius filius ΧΑΙΡΙΠΠΟΣ (ΙΙ.) Α.Π.' If, however, the reference of the last clause is to the Χαιρίππος Αὐτοκλέου Πιθεύς of *C.I.A.* ii. 2. 774, l. 14 it is open to objection, for if Αὐτοκλῆς was ἔφηβος in 334–3, it is unlikely that his son would be of an age to bring a δίκη ἀποστασίου before, at the earliest, the closing years of the century: but *C.I.A.* ii. 2. 774 can hardly be dated so

late. I would suggest that Kirchner's entry might be re-written: 'ΑΥΤΟΚΛΗΣ (II.) ΧΑ(Ι)ΡΙΠΠΟΥ ΠΙΘΕΥΣ iv. 2. 563 b 25 ἔφηβος a. 334-3. Eius pater ΧΑΙΡΙΠΠΟΣ ΑΥΤΟΚΛΕΟΥ (I.) Π.'

l. 25. *Ζευγοτρόφος.* See the concluding paragraph of my introduction (p. 211, above).

l. 27. In *C.I.A.* ii. 773, A, ii. l. 45 we have ΕΥΘΥΜΑΧΟΝ ΕΥΔΙΚΟΥ . . . . Al, where we may now restore the demotic [Ξυπετ]αι(όνα).

I am unable to restore the name of the occupation in line 21. In column iii. the reading of lines 17-21 is very precarious owing to the state of the stone's surface.

## VII.

A block of white marble broken on two sides: inscribed on front and back. Thickness .115 m. The surface of the stone has in front (A) a maximum height of .135 m. and a breadth of .1 m.: the corresponding measurements for the reverse side (B) are .235 m. and .18 m. The writing is careful and regular.

### A.

|    |                 |
|----|-----------------|
|    | Η Λ Υ Α Ι Ο Τ   |
|    | Τ Α Λ Α Σ Ι Ο   |
|    | Ε Γ Α Κ Λ Ε Ι   |
|    | Ε Υ Κ Ο Ν Ο Ε / |
| 5  | Φ Ι Α Λ Η Ν     |
|    | Ω Τ Η Ρ Ι Σ Ε Μ |
|    | Α Λ Α Σ Ι Ο Υ Ρ |
|    | < Η Φ Ι Σ Ο Δ Ω |
|    | Α Χ Α Ρ Ν Ε     |
| 10 | Φ Ι Α ^         |
|    | Μ Ε Ν Ω         |
|    | Ο Ι Κ Ι         |
|    | Ο Ψ             |

'Ηδύλιον[- - οἰκοῦσα  
ταλασιο[νργὸς ἀποφυγοῦσα  
[Μ]εγακλεῖ[α - -  
[Λ]ευκονοέ[α  
5 Φιάλην [σταθμόν : Η  
[Σ]ωτηρὶς ἐμ [- - - οἰκοῦσα  
[Τ]αλασιουρ[γὸς ἀποφυγοῦσα  
Κηφισόδω[ρον - -  
'Αχαρνέ[α  
10 Φιά[λην σταθμόν : Η  
Μένω[ν - -  
οἰκῶ[ν - - ἀποφυγῶν  
'Οψ - - -

## B.

On the reverse side the inscription is very badly weathered, and the difficulty of reading is still further increased by a faulty vein in the marble running diagonally across the stone from the top right-hand corner, the letters written on which are in almost every case illegible.

\ T I Θ H T A I  
Φ I E II E N O  
A N A Θ H M A      II  
O H    I E                 I K A S  
5    \ A N A Γ ?    Q E I N T L O N  
E A R O                 S T O Y N O  
\ T    S T A O M O N  
I S ^ E K G O N O N T O N  
I N E I K A T A L Y  
10    N A K E I M E N O Y  
N P R Y T A N E O N

1. 1. [ἀν]ατίθηται - - ; l. 3. ἀνάθημα ; l. 5. ἀναγρ[ά]φειν τὰ ὄν[όματα - - ?  
l. 7. σταθμόν ; l. 8. [τῶν] ἐκγόνων τῶν ; l. 10. [ἀ]γακειμένου ; l. 11. [τῶ]ν  
πρυτάνεων.

After l. 11 follows a blank space .056 m. in height: this was succeeded by a further inscription, as is proved by the traces of two or three letters still preserved at the foot of the fragment, probably of the same nature as the inscription on side A. In that case it may well be that lines 1-11 on side B contained the heading of the stele, possibly in the form of an extract from the law dealing with the dedication of *φιάλαι ἐξελευθερικαί*.

The *Κηφισόδωρος Ἀχαρνεύς* of A, l. 8, may perhaps be the *Κηφισόδωρος Παναισχούς Ἀχαρνεύς* of *C.I.A.* ii. 2. 946.

MARCUS N. TOD.

## EXCAVATIONS AT PRAESOS. I.

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### § I.—INTRODUCTORY.

(PLATE VII.)

THE excavations at Praesos undertaken by the British School in 1901 were begun on May 7th and continued until July 3rd. The Cretan Exploration Fund contributed £200, the Society of Dilettanti £50, and the Prendergast Fund of Cambridge University £40, towards the cost of the campaign. With me were two members of the School, Mr. J. H. Marshall, of King's College, Cambridge, and Mr. R. Douglas Wells, architect. Mr. Wells made a survey of the city-plateau and the adjoining ravines (Plate VII) and a large number of plans and drawings, many of which accompany this article. Mr. Marshall rendered valuable help in the work of supervision, and undertook a systematic exploration of the surrounding district. I much regret that it has been impossible for him to contribute to this report more than the section on the Megalithic House, printed below (§ 4). Soon after the close of the season he was appointed Director of the Archaeological Survey of India, and has necessarily been absorbed in the duties of that important post. I have had the use of his notes on some of the tombs.

The name of Praesos, like that of many other Cretan towns, survived through the middle ages. In the seventeenth century there was a Venetian village called Πρασσός on the level ground south of the First Acropolis (Plate VII), and the name as well as the ruins of the ancient city were known to Venetian antiquaries.<sup>1</sup> Among modern travellers Spratt gave

<sup>1</sup> The ruins at *Pressos* are described by Coronelli in his *Isolario*, quoted by Pashley (*Travels in Crete*, i. p. 290) and in the list of Cretan cities extracted by Flaminio Cornelio from a MS. chronicle of Andreas Cornelio (*Creta Sacra* i. p. 117, Venice 1755). The latter passage runs: *Pressos, cuius ruinae super collam a Sethia procul viii. mille passibus apparent, eamque exerterunt Hierapytini, ut scribit Strabo, qui et refert Eteocretum urbem fuisse, ex qua adducebantur canes celeberrimi.* It appears as *Prassus* in a list of the villages of Sitia in a MS. at Venice, dated 1630 (Francesco Basilicata, *Relatione di tutto il Regno di Candia*, Library of S. Mark's, H. vii. 1683), and in an anonymous MS. *Descrittione dell'Isola di Creta* of about the same period. For both references I am indebted to the kindness of Mr. Gerola of the Italian Mission.

the first general description of the site and its surroundings.<sup>1</sup> In 1884 Professor Halbherr discovered the first Eteocretan inscription, at the foot of the Altar-hill, and in 1887 its publication by Prof. Comparetti (*Museo Italiano*, ii. p. 673) called the attention of scholars to the problems of the district. In the summer of 1894 Prof. Halbherr began an excavation on the summit of the Altar-hill, and also at a site rich in votive terra-cottas below the village of Vavélloï, but after a few days of fruitful work he was stopped by the Turkish authorities.<sup>2</sup> About this time too the Eteocretan region was explored by Prof. L. Mariani, and in greater detail by Dr. A. J. Evans, who was here in 1894 and in 1896. Then came the insurrection of 1896. The people of Vavélloï, the rich Moslem village overlooking the site, were besieged by their Christian neighbours, but on the second night fought their way through to Sitia leaving the country in the hands of the Christians. In the months of disorder that ensued there was a good deal of reckless digging on both the sites where Prof. Halbherr had made a successful beginning, and mule-loads of terra-cotta figures and plaques were carried off to the neighbouring villages. Much was irretrievably dispersed, but a large number were saved by the enlightened energy of the Bishop of Hierapetra, who has since presented his collection to the museum at Candia. With the consent of Dr. Hazzidakēs, Mr. E. S. Forster has undertaken to study and describe them in conjunction with those found in our own excavations. Prof. Halbherr had no wish to return to Praesos, and upon the institution of the Cretan Fund in 1899 it was one of the sites reserved for British enterprise by the good-will of H.R.H. Prince George of Greece, the High Commissioner of the Powers. The Directors of the Fund assigned it to the British School, and in February, 1901, I went down to reconnoitre the site, which had been visited by Mr. Marshall in the preceding January. Both Dr. Evans and Prof. Halbherr put their knowledge of the district freely at our disposal; in particular Dr. Evans's unpublished diary of his journeyings in the district proved of infinite use. Unfortunately the

<sup>1</sup> Sieber, who was here in June, 1817 (*Reise nach Kreta* i. p. 361), heard of the site, which he calls *Preses*, but did not visit it. Pashley visited it in August 1834: he discovered and published the Praesos-Itanos boundary-inscription at Toplu monastery (*Travels in Crete*, i. p. 290). Spratt was here in the fifties, and published his book in 1865 (*Travels and Researches in Crete*, i. p. 164.)

<sup>2</sup> Professor Halbherr contributed an article on Praesos to the *Antiquary* for May, 1902, and a preliminary account of his excavations to the *American Journal of Archaeology*, ix. (1894) p. 543, and to the *Athenaeum*, 1895, i. p. 812. A brief description by Professor Mariani will be found in *Monumenti Antichi dei Lincei*, vi. pp. 283-5; on p. 287 a useful map of the region to the East.

report of Prof. Halbherr's excavations did not appear until our campaign was at an end and our plans already engraved.<sup>1</sup>

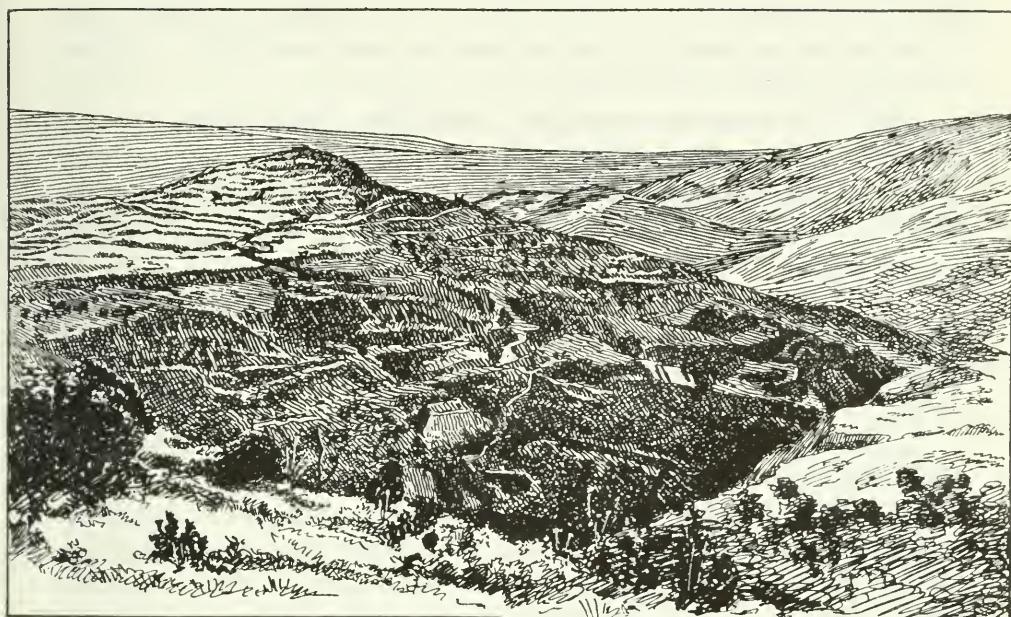


FIG. 1.—THE FIRST ACROPOLIS, FROM THE SOUTH-EAST.

## § 2.—THE SITE.

Praesos lies nearly midway between the north and south coasts of Crete, at the head of a fertile valley which runs inland due south for seven miles from Sitia, the capital and port of the easternmost *eparchia* of the island. The site of the ancient city is a rocky tongue-shaped plateau, almost enclosed by two streams which unite at its foot and form the Sitia river.<sup>2</sup> On north and west this peninsula descends in formidable cliffs, to

<sup>1</sup> *American Journal of Archaeology*, v. (1901) pp. 371–392.

<sup>2</sup> The name Διδυμοί, preserved as that of a river or rivers in Crete by the author of a metrical description of Greece (Dionysius Calliphontis in Müller's *Geogr. Gr. Min.* ii. p. 242), is appropriate to the two confluents of the Praesos-Sitia river and has been applied to it, but is better avoided. Diodorus (v. 75) mentions two islands called Dionysiades on the Cretan coast ἐν τῶν καλούμενων Διδύμων κόλπων, evidently the islands called by sailors Giannitzades and by the country-people Διονυσάδες, off the gulf of Sitia.

the east it falls away gradually in a long succession of slopes and cultivated terraces. At its southern extremity the valleys converge so nearly that for a short distance the road follows a narrow ridge from which the fields drop sharply away at either hand. The plateau over which the ruins extend rises into three heights which we have followed Mr. Halbherr in calling the First, Second, and Third Acropolis.

The First Acropolis, the highest of the three, is the only one to which the name of Acropolis can be applied with accuracy. It is the apex of a triangular limestone hill, which forms the whole eastern face of the plateau. Fig. 1 shows it as it appears from the south-east. It was the citadel and centre of the ancient city.

The Second Acropolis lies north-west of and considerably lower than the First, with which it is connected by a level cultivated plot to which we gave the name of the Saddle. It was included in the wall-circuit of the city.

The Third Acropolis is another specimen of the same 'crag and tail' formation as the First. It is a flat-topped wedge of limestone which slopes up gradually from the north-west and falls away in steep precipices on the three remaining sides. It lay outside the walls of the city and may be more accurately named the Altar-hill, having been a frequented place of sacrifice from the seventh century onwards. Between Third and Second Acropolis there intervenes a broad arid gully, the only break in the cliff-wall which bounds the site on the west; between Third and First a trough-like depression, divided into olive-groves and fertile corn-fields, in which there is hardly a vestige of ancient masonry.

Our examination of the remains of the classical city showed that the houses rest everywhere upon the rock without any accumulation of débris such as usually encumbers the site of a prehistoric city. Consequently the assumption that the historic capital of the Eteocretans had held the same leading position in the Mycenaean as in the Hellenic period must be abandoned. The minor results obtained in the city and in the later cemeteries in 1901, and those of some subsidiary excavations to be undertaken in 1903, will be published in the next volume of the *Annual*. The present paper describes the traces of prehistoric occupation, the early cemeteries, the important sanctuary on the Altar-hill, and a Hellenistic house excavated on the First Acropolis.

§ 3.—THE CAVE OF *Skalais*.

Not far from the quarries at the north end of the Praesos plateau, and immediately above the gorge formed by the western arm of the Sitia river, is a cave which yielded the only neolithic and Kamáres pottery that came to light in these excavations. A difficult path from the cliff top descends to a shelf commanding a fine view of the rock-walls opposite, of the river winding through thickets of plane and oleander 140 feet sheer below, and of the fertile haughs at the confluence of the two streams. The cave is so well masked by a fig and a carob-tree growing at its mouth that few of the natives knew of its existence. Those who did called it *ταῖς Σκάλαις*.

The platform at the cave mouth is about 10 m. from back to front. There among fallen rocks we obtained a score of grey and brown hand-polished potsherds, much like those of the neolithic strata at Knossos. Within the cave we were only able to examine a part of the floor and that with difficulty, owing to the thickness of the stalagmite. It yielded some early Bronze Age pottery, in particular a clumsy mug of reddish clay covered with a black smear (Fig. 2) and a sherd with oblique sepia stripes on yellow, resembling the earliest painted ware of Syra: a few Kamáres fragments: some cups of a thin reddish ware which baffled me at the time but in the light of finds at Palaikastro are seen to be local products of the Mycenaean age: a plain semicircular



FIG. 2.—HAND-MADE MUG FROM THE CAVE (‡).



FIG. 3.—FRAGMENT OF GEOMETRIC VASE (‡).

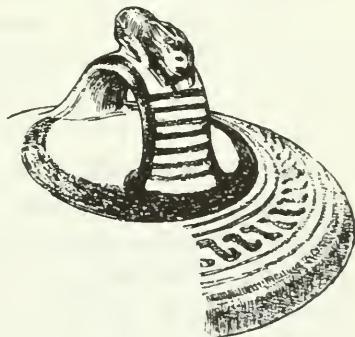


FIG. 4.—VASE-LID WITH FIGURE OF HARE (‡).

bronze fibula like those from Kavusi (*A.J.A.* 1901, p. 136) : and a quantity of geometric pottery, for the most part small vessels of types already familiar on other parts of the site. Fig. 3 represents a characteristic piece with what was evidently a symmetrical panel of two birds, and Fig. 4 a cover with a lifelike crouching hare upon the handle—a piece of naturalism unusual in the industrial art of the period.

The only bones found here in good preservation were those of a colony of badgers ; the human remains were much scattered and decomposed.

#### § 4.—THE MEGLITHIC HOUSE AT HAGIOS CONSTANTINOS.

(PLATE VIII, FIG. 1.)

I have already mentioned the two confluent streams of the Sitia river which enclose the site of Praesos. The eastern stream rises two miles from the First Acropolis in a remarkable perennial spring called Μεσαβρύσις or τοῦ Τζανῆ ἡ φλέγα, which irrigates not only a number of gardens in the upper glen but a great part of the fields and orchards of Vavéllioi. In classical days a little temple stood on the slope a few yards above the source, dedicated perhaps to the deity of the spring. Her goodwill was of some moment to the Praesians, for it was from here that they drew their water-supply. The old people of Vavéllioi point out the general line of an ancient conduit of earthenware pipes, now in great part destroyed, which followed the curves of the hillside from the Μεσαβρύσις to the foot of the First Acropolis. Nowadays the irrigation system does not extend so far.



FIG. 5.—EARTHENWARE PIPES ( $\frac{1}{2}$ ).

Strips of megalithic wall are noticeable at several points along the steep sides of the valley watered by this spring. Some of them may be no more than retaining-walls for cultivation terraces ; the only one which we excavated proved to have formed part of a large house. It lies above and south-west of the spring, on a knoll crowned by some ruined cottages. The blocks which first attracted our attention are irregular cubes of lime-stone, measuring over a metre in each dimension. A second row of smaller

blocks extending across a small plateau on the west may mark the limits of a forecourt. Close by stands the little church of Hagios Constantinos built in the shelter of a conspicuous tower-like rock. These features are seen in the photograph (Pl. VIII, 1), the bleached remains of the forecourt-wall appearing midway between the church and the right-hand edge of the picture, while the background is filled by the limestone heights overhanging the villages of Katsidhoni and Sandali. The top of the rock on which the man in the foreground is seated has been hollowed out into a primitive winepress. Details are given in Fig. 6. It lies 200 yards south of the megalithic farmstead, and may be coeval with it. If, as there is some reason to suppose, wine as well as oil was made and exported by the

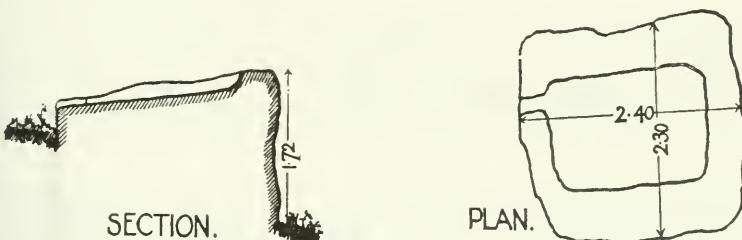


FIG. 6.—ROCK-CUT WINEPRESS AT HAGIOS CONSTANTINOS.

Mycenaean population of Crete, the culture of the vine may afford an explanation of the spread of their settlements from the coast-plains to the highlands of the interior, for in Crete the vine succeeds better in mountain districts than at sea-level, and vineyards are frequently planted at a height of 2000 feet above the sea. It is true that nowadays there are few vineyards on the uplands round Praesos, but this is because they have belonged for generations to the Moslems of Vavélio. Nearer Khandra and in the mountain plains of Sitanos and Kataleone, and at several points in the chain of Peponas, especially at Orno, the remains of Mycenaean civilisation are found in close proximity to flourishing vineyards.

More excavation is required before we can speak positively as to the date of the megalithic buildings in the interior of the island. Their construction favours the supposition that some of them at any rate are contemporary with the megalithic houses of Palaikastro. In the present case the evidence for a Mycenaean settlement is furnished by the tombs. I picked up fragments of undoubtedly Mycenaean *larnakes* on the hillside

known as 's τὸ Μαυρίκι, a few hundred yards from the spring, and was shown spots where complete specimens had been ploughed up. Considered along with the imposing Mycenaean tombs lower down the valley, these traces suggest that some of the adjoining megalithic walls may be the work of Mycenaean settlers. The house which we excavated here yielded little pottery. Some plain domestic ware of the Cretan Dipylon period

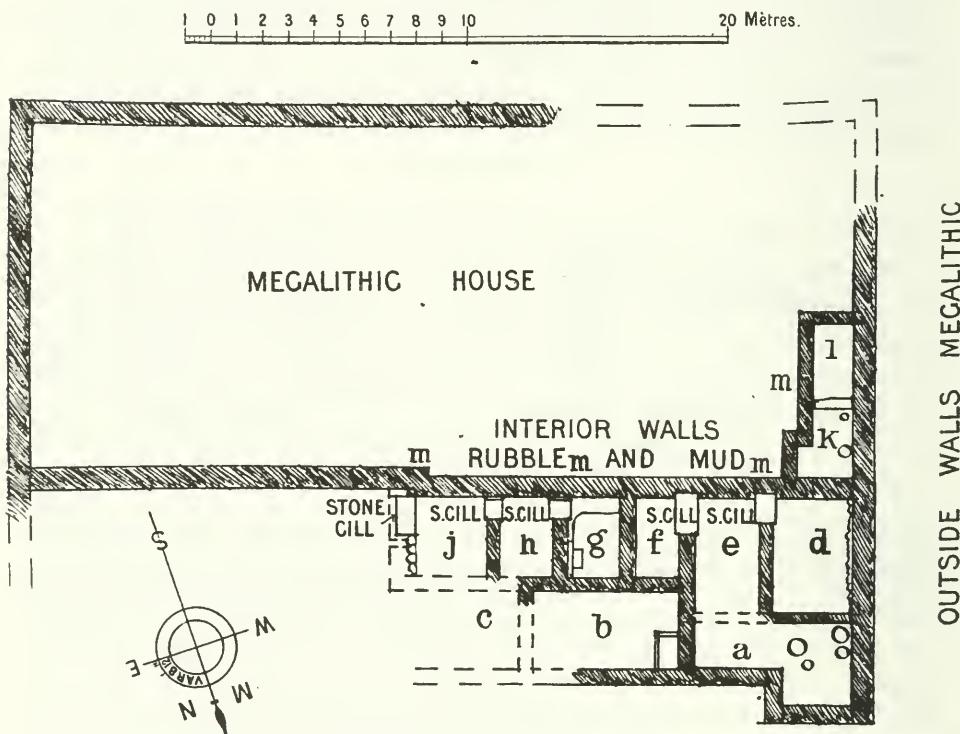


FIG. 7.—HOUSE AT HAGIOS CONSTANTINOS.

was found in a basement room which also contained broken *pithoi* with ornamentation of sub-Mycenaean style, but it would be rash to lay much stress on the juxtaposition, for there were indications of a rebuilding in the course of which this cellar had been filled up. No painted ware was found, neither Mycenaean nor geometric.

Mr. Marshall, who superintended this excavation, has furnished the following detailed description.

The excavation disclosed the remains of two houses at different levels ; the older had apparently fallen in or been destroyed, and on its ruins was built a later house of a somewhat different plan, but its traces were too scanty to allow of a restoration, and it has consequently been omitted in the drawing. The older building was better preserved ; it was constructed in terraces sloping down to the N.N.E., but it is probable that the addition of upper storeys brought the roof of the whole to the same level. The room (*a*) may well have done duty for a basement cellar, for it lay lower than (*b*) or (*c*) of which the pavement was preserved at the same altitude as the flooring of the rooms behind to the South.

In room (*a*) were found large *pithoi* of coarse fabric with spiral and scroll designs and bands of perpendicular lines or cross-hatchings incised ; by their side was some local ware of the characteristic grey clay with a rough sepia slip. In chamber (*b*) at the N.W. corner was a small oblong depression in the floor built round with uneven stones to a depth of about two feet, and containing 13 or 14 small "flower-pot" cups, several with burnt vegetable matter beneath them, and all showing some signs of fire.

In the S.W. of these chambers and on the same level as (*c*) and (*b*) were six rooms, leading one from another. The doorway in the fourth wall from the East was built in at a later time, and the threshold seemingly removed to the opposite side of the chamber (*g*) where it is marked in the plan. The thresholds of the other doorways remain *in situ*, firmly let in to the walls on either side. The lower portions of the jambs, massive blocks of stone some 3 feet in height, also remained *in situ*.

The first room (*j*) on entering from the East was paved over with irregular blocks of limestone of varying sizes, as also were the rooms marked (*b*) and (*c*).

The partition wall between (*h*) and (*g*) was rebuilt in the original house, an inner-wall with a circular corner being constructed inside the chamber (*g*).

At the fourth partition wall from the East the back wall (*m m*) was rebuilt out of the straight, and falling back at a slight angle towards the West. Southward again of this wall were two other chambers (*k*) and (*l*) of which the former contained one large *pithos*, with spiral decoration, together with other vessels of the common local fabric. These chambers were standing to the height of 5 or 6 feet. No doubt other rooms existed to the South and East at a higher level, but their plan is no longer traceable. The wall (*m m m*) is backed to its full altitude by virgin soil.

The inner walls of the house are built upon a foundation of natural round stones laid upon the clay subsoil, as large in size as the two hands could conveniently grasp. Upon these are set the roughly squared megalithic boulders, with smaller stones wedged into the interstices.

What the limits of the outer walls of this homestead were towards the north could not be determined. They may have extended in that direction to the rocky eminence upon which stands the church of Hagios Constantinos, and which is separated from the house by a shallow depression in the ground ; similar remains in similar situations are to be remarked elsewhere among the hills of Eastern Crete, e.g. at Chordáki, at the *metoche* beyond Kalochorio (south-east of Apidhi), and at a site north of Perivolakia.

In the interior of the house between the chambers marked (*h*) and (*g*) was a later grave containing bones, some pottery of the common local ware, a small *aryballos* of early Corinthian fabric, a portion of a silver ring, a fragment of silver with hatched lines incised, a circular piece of bone with rough flutings, and an ivory disc. The existence of this grave at a period fixed within narrow limits by the

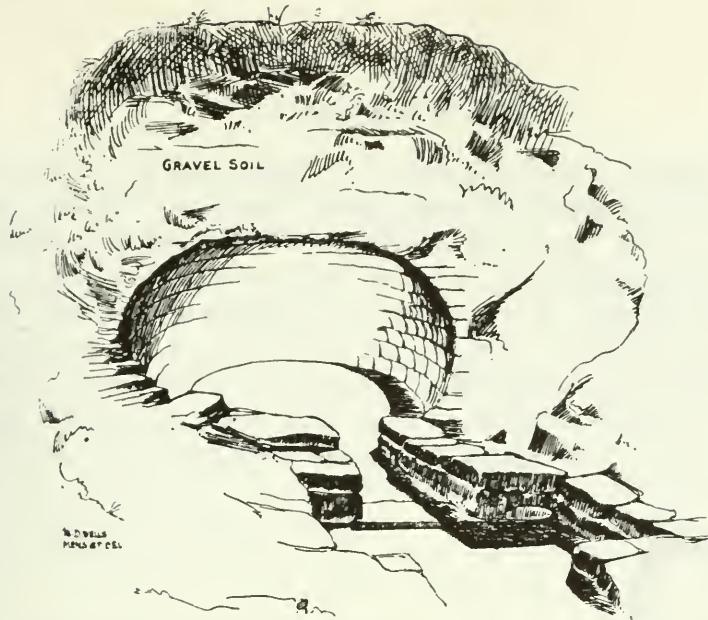
presence of the Corinthian vase, when the later of the two houses had been levelled with the ground, gives the lower limit for the date of the original buildings. The higher limit is perhaps determined by the fact that there was no trace of anything Mycenaean in the houses, though this negative evidence may count for nothing if it be the case that the first inhabitants of the house belonged to a non-Mycenaean people of the interior. On the other hand, sub-Mycenaean survivals were apparent on fragments of *pithoi* found in the lowest stratum along with that peculiar local ware of grey powdery clay with a coarse sepia slip which has not, so far as I know, been found at an earlier period than the geometric in Crete.

J. H. MARSHALL.

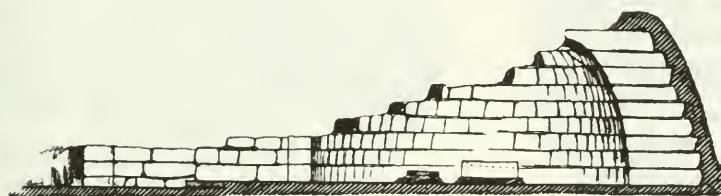
### § 5.—THE EARLY TOMBS. A.

Tomb *A* is a large bee-hive tomb underlying the public road south-east of the Third Acropolis and east of the main cemetery. The clue that led to its discovery was the presence in the roadway of some huge wedge-shaped blocks, which proved to be part of the highest surviving course of the back-wall. The floor was found 2·60 m. below the surface of the road. East of it the tomb extends into a field at a lower level, and here the walls stand only half a metre high. The entrance is from the north-east through a short *dromos* cut in the subsoil, which leads to a feature unusual in such tombs, a vestibule 2·30 m. by 1·50. Beyond this is a low threshold and a passage .85 m. wide through the thickness of the wall, which is about 1·60 m. at ground-level, and becomes less as the wall rises. The diameter of the circular chamber is 4·07 m. A rebate in the wall at either side of the entrance suggests that there was a door here and wooden door-posts. The material used is not the Praesos limestone but a soft white freestone quarried near Vavello; it is laid in regular courses about .20 m. thick. The chamber was choked with the fallen stones of the roof; below them and .35 above the original floor there was a hard trodden floor of earth and broken pottery; it seems that the tomb was discovered while still intact and inhabited or used for some agricultural purpose.<sup>1</sup> The discovery of a late silver coin of Itanos suggests that this may have

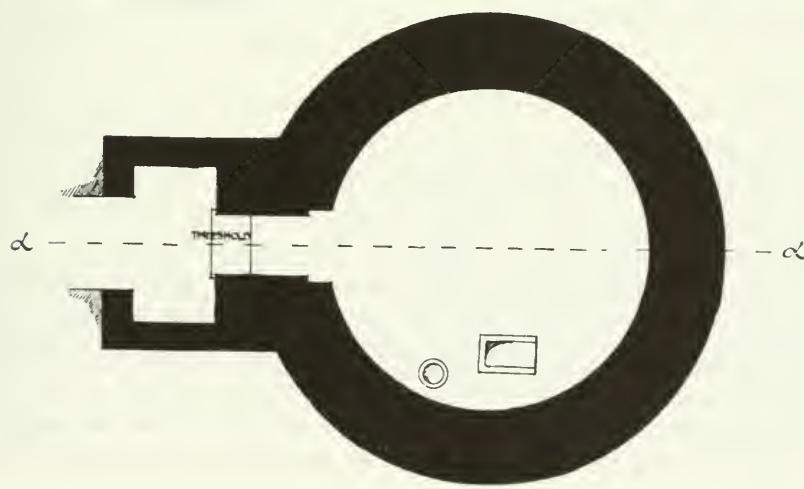
<sup>1</sup> To the right of the entrance are two blocks resting on earth containing broken pottery. One is a round drum .51 m. in diameter, .17 high, with a circular sinking on its upper face .32 in diameter and .04 deep. A similar stone was found near the entrance. Were these basins for libations? One of the geometric tombs at Knossos contained 'a cylindrical stone, 1 ft. high and 1 ft. 4 in. in diameter, with a central hollow 6 in. in diameter,' explained by Mr. Hogarth (*B.S.A.* vi. p. 83) as a funerary altar. The other is a rectangular block (.85 m. × .50 × .27 deep), with a raised margin on three sides of the upper surface, which is sloped away towards the fourth side, forming an inclined trough, .05 m. deep at the upper or closed end, .15 deep at the open end.



THOLOS TOMB 'A'.



SECTION aa.



PLAN.

FIG. 8.—BEE-HIVE TOMB AT PRAESOS.  
(Scale 1 : 110).

happened in the first or second centuries B.C. Below this later floor-level was a tightly packed deposit of broken pottery and other objects mixed with red earth which showed the effects of fire. It became clear that the whole of this stratum had been dug over; the pottery was smashed and the pieces scattered. It was for the most part coarse geometric ware of types already familiar. There was no Mycenaean or Kamáres ware. Although the whole of the deposit was dug out inch by inch with knives and the earth was afterwards sifted, no bones were found except some teeth (man, ox, and dog). I am inclined to explain the large quantity of pottery



FIG. 9.—GEOMETRIC JUG FROM BEEHIVE-TOMB (½).

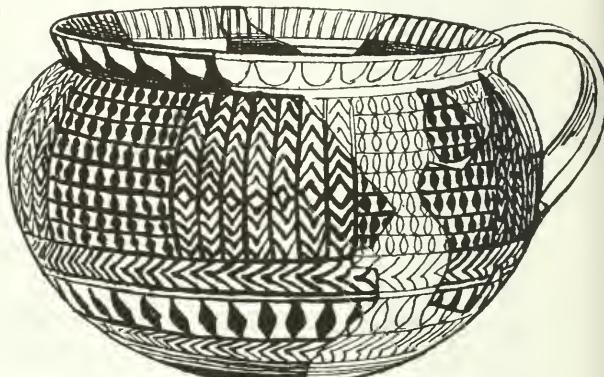


FIG. 10.—GEOMETRIC CUP FROM BEEHIVE-TOMB (½).

found here as the result, not of repeated interments, but of honours paid to the dead during several centuries of hero-worship, such as we know to have attached itself to the beehive-tomb at Menidi. The best-preserved vases were those found in the vestibule, in the recesses at either side, which seemed to have escaped the notice of the ancient excavators. Fig. 9 represents a small jug made of a thin, metallic ware; most of the decoration is in dark brown glaze laid on the drab clay, but the narrow white bands on the body are in *white* paint laid over the brown glaze, a technique which was common in East Crete and may have been a direct continuation of the method so popular there in the Bronze Age; a fine example of it occurred in Tomb C (Plate IX. d). The decoration of the cup (Fig. 10)

is made up of familiar elements, and succeeds in producing a certain richness of effect.<sup>1</sup> Associated with this group was a proto-Corinthian aryballos with elongated pear-shaped body.

Within the chamber no whole vases were found ; the mass of fragments filled twenty-three baskets, but prolonged examination shows that very few can be put together. A great part of the original deposit had been dug out and scattered by the first excavators ; our trial-pits on the slope below the Tholos came on débris, including pottery and scraps of gold-leaf, which seemed to have been thrown out at that time. The latest of the potsherds are two red-figured fragments, of no interest, and part of a standard-vase of the type sometimes called *plemochoe*. Part of an earlier vase of somewhat the same shape had the figure of a bull on it in high relief. A globular aryballos was the only specimen of Corinthian ware.

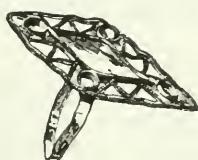


FIG. 11.—GOLD RING WITH GRANULATED WORK. (Length of bezel '028).



FIG. 12.—GOLD ROSETTE. (Diameter '023).

Among the later geometric sherds there were numerous pieces of plates with low vertical sides, decorated on the exterior with large rosettes. One large fragment of this form, to be published shortly by Mr. Hopkinson, has a figure-subject both inside and out, on the outside a hero attacking a fishy monster, on the inside a horseman, drawn in outline in a very spirited sixth-century style.

Among the minor objects found within the chamber was a remarkable gold ring (Fig. 11) which has the bezel turned at right angles to the hoop, as is usually the case with Mycenaean rings ; it is too frail for actual use and must have been made as a substitute for the ring worn by the dead man during his lifetime. The bezel is lozenge-shaped and has been cut out of a flat plate of gold. A lozenge-shaped cloison occupies the centre, and a small round cloison is placed at each angle ; it is not clear how they were

<sup>1</sup> Compare a vase from Anopolis published by Wide, *Geometrische Vasen aus Griechenland*, p. 12, Fig. 17.



FIG. 13.—SILVER PIN FROM BEE-HIVE TOMB ( $\frac{3}{4}$ ).

filled. The border forms a series of openwork triangles, and their margins are picked out with fine granulated work.

Fig. 12 represents a disc of very pale gold in the form of a flower with ten petals. Numerous scraps and strips of gold leaf, with thread-holes showing that they had been attached to garments, were scattered through the deposit. Among the other objects were :

A fragment of ivory with a finely incised rosette and traces of red and yellow colouring.

A bone sword-pommel, original diameter about .06 m.

Piece of a bone haft-plate with a gold stud attached.

Fragments of a bone comb, with incised ornament.

A small *Triton* shell.

A lentoid gem of steatite, the design obliterated.

An amygdaloid gem of cornelian with a meaningless wheel-cut design, somewhat resembling two fish, common on Cretan gems of the sub-Mycenaeán age. (Cf. Furtwängler, *Die antiken Gemmen*, Taf. IV. 9 and 10).

The tip of a bronze knife or dagger.

Fragnents of a plain hemispherical bronze bowl without handles.

A lozenge-shaped bronze plate, .043 m. in diameter.

Twenty-three beads of glazed earthenware, much perished.

Thirteen small blue and yellow beads.

One cylindrical glass bead, banded with white.

Four wheel-shaped earthenware spindle-whorls with a cross-hatched zig-zag band on the rim.

One spherical bead with similar ornament

A small disc of striped blue and yellow glass.

Two spear-heads rusted into one mass.

A palette (?) of black slate measuring .026 by .020. Others were found in Tomb C.

A silver pin (Fig. 13) .275 long, with a flat spreading head on which is a small rosette.

A bronze *fibula*, of the size and shape of a modern safety-pin, with three twisted strips of bronze wire bent about the pin.

The neck, lip and handle of an *oinochoe* of bright blue porcelain with a trefoil mouth. The form is almost exactly that of the bronze jug with riveted handle found in the Idaean cave (Halbherr and Orsi, *Antichità dell' Antro*, &c. Pl. xxi. 12).

The neck, lip, and handle of an *oinochoe* of black *bucchero*; of the same form as the preceding, with the difference that the handle of the porcelain jug has three shallow flutings, while that of the other is formed like two slender reeds set side by side. Not a fragment of the body of either jug could be found.

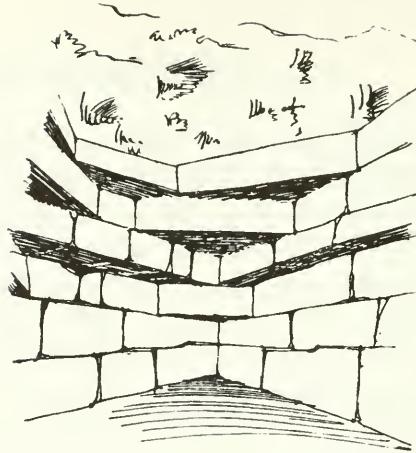
The deposit had been so much disturbed that it is hard to identify the offerings which accompanied the original

interment. Nothing was found which can be claimed as indisputably Mycenaean; the bronze knife, the much worn steatite lentoid, the hint of Mycenaean tradition in the form of the ring, are not conclusive. The sequence of the pottery shows that the tomb was known and frequented for many generations, probably as a place of cultus rather than of burial. The other offerings may be taken as evidence of an important interment in the early geometric period, but do not exclude the possibility that the first tenant of the tomb was a Mycenaean.

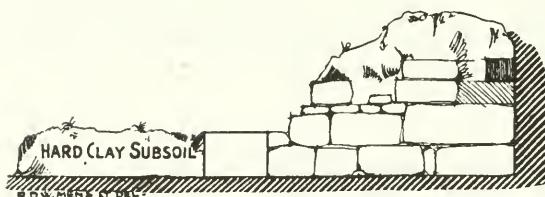
The juxtaposition of vessels of blue porcelain and of black bucchero is a fact of great interest. If the one material points to Egypt, the other points to Italy, while the likeness of both to the bronze jug found in the Cave of Zeus on Mount Ida suggests that they were imported at the period when Phoenician influence, as attested by the discoveries made in the Cave, was dominant in Cretan art and industry.

#### § 6.—THE EARLY TOMBS. B.

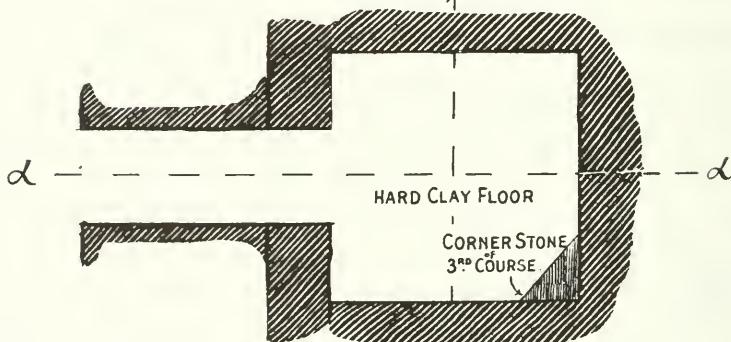
Tomb *B* lies 250 yards south of the tomb just described, east of the road to Vavéllioi, in a sloping field called Ἀρφανοπεριβόλια. A grave containing *pseudamphorae* had been found some years before in an adjoining garden; consequently we made some trials here; on July 3 one of our pits struck upon this tomb, a built chamber 2·50 m. square, entered from the north-west by a passage .93 m. wide. The walls, nearly a metre thick, are built of irregular blocks of freestone quarried on an adjoining hill, laid in courses of varying thickness. The roof had collapsed; it had been formed of overlapping slabs, some of which remain in position at the farther angles. The perspective sketch (Fig. 14) shows how the courses were corbelled out. The two largest blocks are a door-jamb (displaced) .46 × .42 × .95 m., and the lintel 1·62 × .90 m.; the latter varies in thickness; like most of the blocks here it has been split, not dressed into shape. There had been at least three interments, the first in the Mycenaean period, the second in the geometric, the third in the fourth century B.C. The remains of the first were fragments of two *larnakes* and some gold ornaments: of the second, some coarse geometric pottery and stamped clay beads: of the third, several dozen iron swords and spear-heads broken into small pieces, and a gold stater of Philip in excellent condition found near the door. Fragments of a marble standard-vase and of the moulded



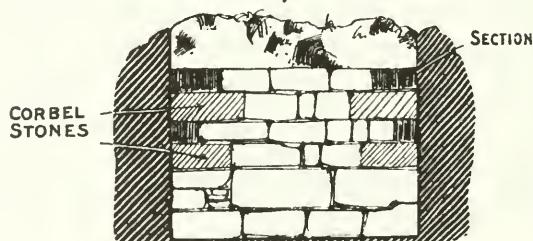
THOLOS TOMB "B".



SECTION dd.



PLAN.



SECTION ββ

FIG. 14.—TOMB B. (Scale about 1 : 80).

base of a silver vessel probably belonged to the third interment. Only the Mycenaean objects merit a detailed description.

Of the two *larnakes*, one was shaped like an elliptical bath-tub, the other like a chest with a gable-lid; both forms are well-known in Crete. The former was decorated with meaningless serpentine curves in dark red paint on a buff slip, and measured about a metre by half a metre with a depth of .55 m. The other had

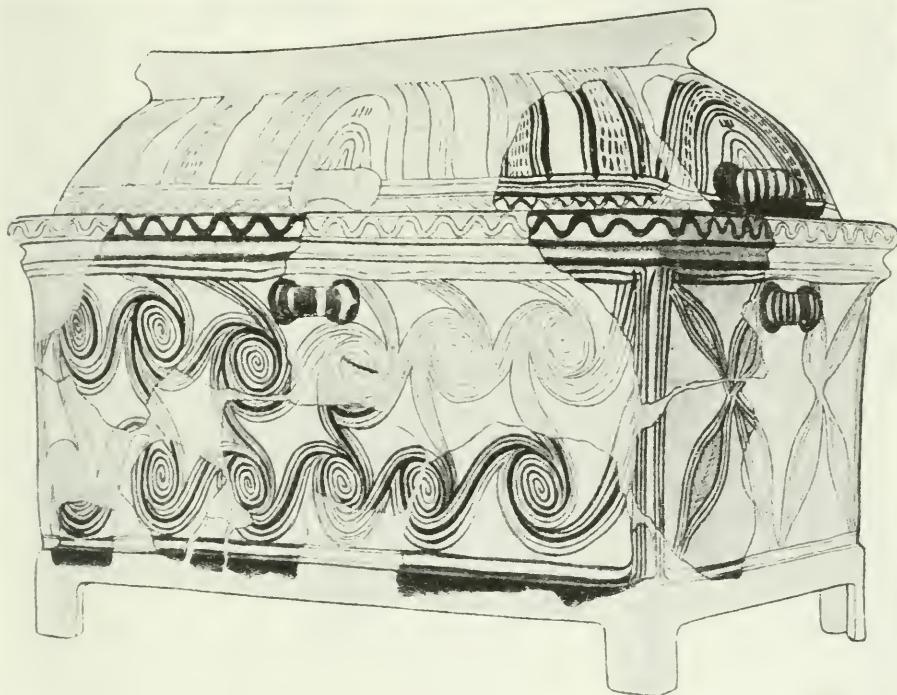


FIG. 15.—RESTORATION OF LARNAX FROM PRAESOS (1<sup>6</sup>).

a spirited ornament of running spirals on one of the longer sides, also in dark red on buff. Of the ends and of the lid few fragments were recovered, but they make it possible to restore the form and design of the original (Fig. 15). It was .92 m. long, .43 wide, and about .65 high without its lid. The clay of both *larnakes* resembles that of Palaikastro and must have been brought from the coast.

Of the gold ornaments the most important is the gold ring shown in Fig. 16. The elongated bezel is hollowed on the inside to fit the finger, and sloped away from the longer axis on the outside. A similar ring was found in Grave 37 at Ialyssos and is now in the British Museum (Furtwängler and Löscheke, *Mykenische Vasen*, Text pp. 16, 17, Fig. 4). The ornament represented in Fig. 17 is formed of stout gold plate, the interior being hollow, and is pierced at the neck to serve as a pendant.

Tomb *B* also yielded a quantity of crumpled gold leaf, some of it impressed with concentric circles : and a crystal sphere .023 m. in diameter, with a perforation .007 in diameter running through it, which must be Mycenaean. I feel less

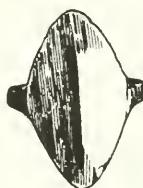


FIG. 16.—GOLD RING FROM TOMB *B*. (Length of bezel .024).

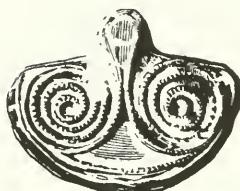


FIG. 17.—GOLD ORNAMENT FROM TOMB *B*.  
(Greatest length .03).



FIG. 18.—  
GOLD BEAD ({}).



FIG. 19.—GOLD  
LEAF ({}).

certain as to the period of a tubular gold bead (Fig. 18). A gold ivy-leaf (Fig. 19) may have formed part of a wreath accompanying the latest interment, the remainder having no doubt been removed by the plunderers who ruined the tomb.

### § 7.—THE EARLY TOMBS. *C.*

(PLATE IX.)

West of tomb *A*, where a long gravel ridge rises between the public road and the Altar-hill, we discovered a cemetery containing tombs ranging in date from the early Iron to the Hellenistic period. The most interesting of the former class is a square shaft-grave (2·60 m x 2·30) sunk to a depth of over three metres through the gravel subsoil at the north end of the ridge. Denudation had reduced the depth on the eastern side, and it was from here that we approached the chamber. At least three interments had been made in it. The latest deposit, very near the surface, contained a poor four-handled 'Corinthian' bowl but no trace of bones ; the second, 1·50 m. above the floor, consisted of a skeleton with feet to the north and the vases *a*, *b*, and *c* of Plate IX. ; the earliest, of a skeleton laid with feet

to the north on a stone bench, an iron sword at his right side, and upwards of thirty vases, among them Plate IX. *d*, disposed partly on the floor of the tomb and partly on the bench at his head and feet. The second skeleton was laid exactly above the first, a fact which may imply that not many years elapsed before the second interment, and that the position of the first was remembered. The lower part of the tomb is cut in the *kouskoura* (wrongly *Tuscarā* in the illustration) or hard white marl which here lies below the gravel; the bench, '70 m. high and '50 wide, is of *kouskoura* covered with thin slabs.

The four vases on Plate IX. vary considerably in technique. Thus *a* is painted with brick-red on a powdery yellow clay: *b* with a paint varying from sepia through red to black: *c* with very fugitive black. The clay of *b* and *c* is well levigated, crisper and better baked than that of *a*, and of a pale buff colour. On the other hand *d* has *white* decoration on a thin black slip, the body clay being reddish.

As to form, I know of no Cretan parallel for the bird-shaped vessel. It is hollow and has a trefoil lip attached to the head, but the opening is so small that it cannot have been meant for practical use. Some analogy for the plastic form is offered by a vessel in the form of a seated nude woman with a *hydria* on her head, one of several score of geometric vases found last winter at Adhromyloï, to the south of Praesos.

The squat vessel, *b*, is a *hydria*, the vertical handle not appearing in the illustration. The find just mentioned contained a large vessel of nearly the same shape, and a smaller one with more tapering base and 'orientalizing' palmettes on the shoulder. The ring on the upper part of the neck is a continuation of the handle, copied from metal vases in which the handle actually clasped the neck of the vase; it appears also on the large *hydria* with mourning women and a chariot, found by Miss Boyd at Kavusi; and on *d* of our Plate. The draughtsman has omitted a small spiral which springs from the top of some of the rectangular gate-like figures on the shoulder of *b*.

The drawing of *c* represents it restored; on the original most of the paint

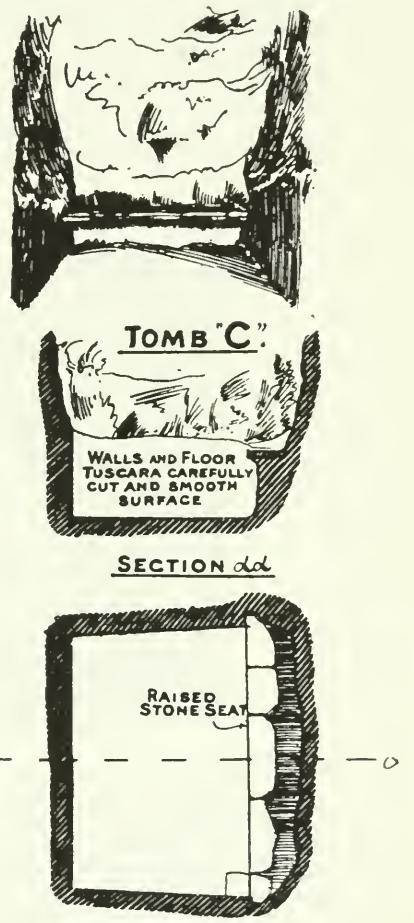


FIG. 20.—TOMB C. (Scale about 1:80).

has scaled off, leaving the design only faintly visible; but there is no doubt about the fidelity of the copy. The double side-handles have a shape that is familiar on the large Dipylon amphorae, but unusual on small vases. The ornament, like that of *d*, presents an interesting juxtaposition of rectilinear and curvilinear motives. The rosette springing from the base reappears on *d*; it is very common at Praesos and in East Crete generally. The pendent spirals on the shoulder furnish another link with the Adhromyloï find, which includes a vase-lid (of the type of *A.J.A.* i. (1897) p. 256 Fig. 4) decorated on the convex exterior with similar spirals, painted in the technique of *d*, however, with white on dark-red ground.

As for *d*, it belongs to an interesting class which goes far to disprove the current *dictum* as to the ugliness of Cretan geometric ware. Hitherto the best



FIG. 21.—VASES FROM TOMB C AT PRAESES. (1 : 5*½*).

examples of it have been a series of five vase-covers (like the one from Adhromyloï already mentioned), found by Mr. Hogarth in tombs at Knossos; they are painted with rosettes, cable, concentric circles, spiral loops, and other curvilinear patterns. The jug with a delicate white scale-pattern on black ground from Kavusi, published by Miss Boyd in *A.J.A.* 1901, p. 146, is of very similar fabric.

Tomb C yielded other examples of this technique, a miniature *hydria* (ht. '10 m.) and *skyphos* (ht. '06), and an open-work tripod or vase support (ht. '32) which is shown in Fig. 21; on the legs of the latter there are traces of a white meander-pattern, on the two miniature vases concentric circles.

The little *hydria* and the tripod just described stood on the stone bench behind the head of the corpse. In the corner beyond them was a remarkable deposit, consisting of a large basin (ht. '13 m. diam. '35) in which were packed eight smaller vases, the miniature *skyphos* in the centre and seven small *lekythos*-like vessels, with round bases and flat narrow mouths, laid radiating from it, and of the slender jug *d* which was laid across the basin—evidently the toilet-furniture of

the dead. The small vases probably contained unguents, the *skyphos* may have served for mixing them. The *hydria* shown in Fig. 21 (ht. '29, with perfunctory decoration of thin concentric circles on buff ground) stood close by, and may have held the water for ablutions. Other articles of the toilet—two obsidian razor-blades, a pair of bronze tweezers, and three rectangular plates of slate (the largest '038 m. x '024, the smallest '025 square) which may have been used as palettes, were found in sifting the earth of the tomb; their place in the deposit is unknown.

The little *stamnos* in the centre of Fig. 21 is typical of most of the remaining vases from this tomb. It is formed of soft yellow clay, covered with a sepia slip, and is without painted ornament. There are half a dozen one-handled cups of this presumably local ware, both large and small, two *skyphoi*, a crater, and a basin; the latter has a white wave-pattern on the exterior, the rest are plain. There is also a tiny *skyphos* of slate-coloured stone-like clay and a toy-jug with thin painted bands on the body (ht. '05 m. and '04 m. respectively.) Drawings of these vases will be included in a table of the forms of Cretan pottery which it is hoped to publish as a result of the recent work of the British School in the island.

The sword found beside the skeleton is '50 m. long, including the hilt; a bronze stud is all that remains of its fittings; the top of the hilt is missing.

The only other objects in the tomb were ten clay beads (diam. about '03 m., Fig. 22) and two clay spindle-whorls (diam. '05 m.); they escaped notice in the caked gravel filling, and were found in the subsequent sifting. Probably they accompanied the second interment, with which no weapon was found and which is likely to have been that of a woman—possibly the wife of the warrior buried immediately below.



FIG. 22.—CLAY BEAD FROM TOMB C (½).

### § 8.—THE EARLY TOMBS. D and E.

Tomb *D* was the only indication of a Mycenaean settlement that came to light on the First Acropolis. It lies half-way down the north-west slope on the seventh terrace from the top, and is surrounded by remains of Hellenistic houses. It must have been discovered and plundered when they were built; yet by an extraordinary accident a precious part of its contents was preserved on the spot for us to identify. The tomb is an irregular oval chamber (Fig. 23) hewn in the limestone and entered by a very low doorway raised '90 m. above its floor. Facing the doorway is a small recess (less regular than it is represented in the drawing), '75 m. wide and '46 high. The tomb itself contained only stones and modern refuse. Adjoining it on the north was the back-wall of a Hellenistic

house built against the rock, and on the south a small bath-room, the floor and walls of which were lined with plaster. It appears that earth from the

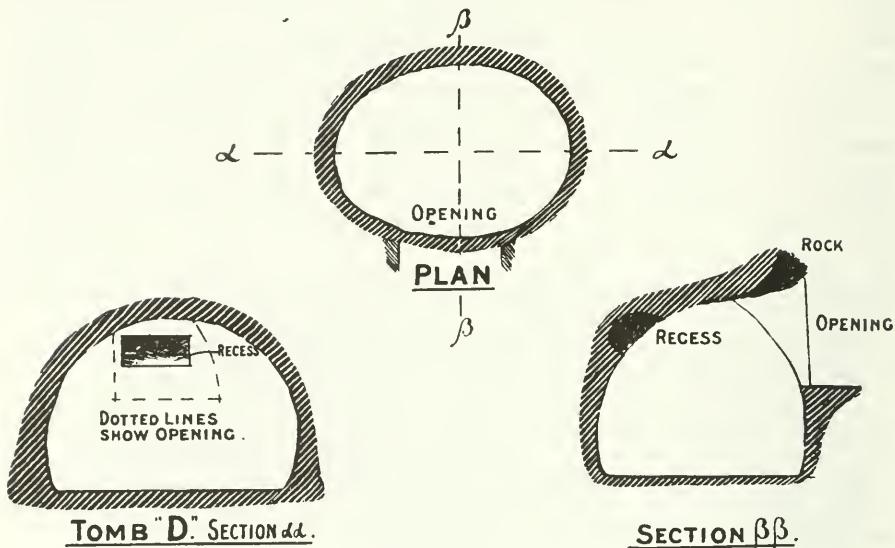


FIG. 23.—MYCENAEAN TOMB ON THE FIRST ACROPOLIS. (Scale about 1 : 80).

adjoining tomb had been used in making the mortar for these buildings, for on May 17, after heavy rain, one of our workmen spied a Mycenaean gem sticking, as he reported, 'like a snail' to the back-wall of the bath-room. The rain had detached some loose patches of plaster and dissolved part

of the mud-mortar behind it. The diagram (Fig. 24) shows the relation of the tomb to the Hellenistic house; the builders seem to have incorporated it in their plan, perhaps turning it into a cistern. The gem is a somewhat large lentoid of yellow agate with milky white bands. The design, reproduced in Fig. 25 after a drawing by Mr. Gilliéron, shows a couchant bull surprised by a hunter who seizes him by both horns. There is an exergue of horizontal lines above and below, with sprays repre-



FIG. 25.—MYCENAEAN GEM FROM  
TOMB D. (§).

NOTE. SINGLE LINES DENOTE  
TERRACES (SEE SECTIONS).

### PRAESESOS, CRETE

PLAN SHOWING STREET EXCAVATED ON  
WEST SLOPE OF FIRST ACROPOLIS.

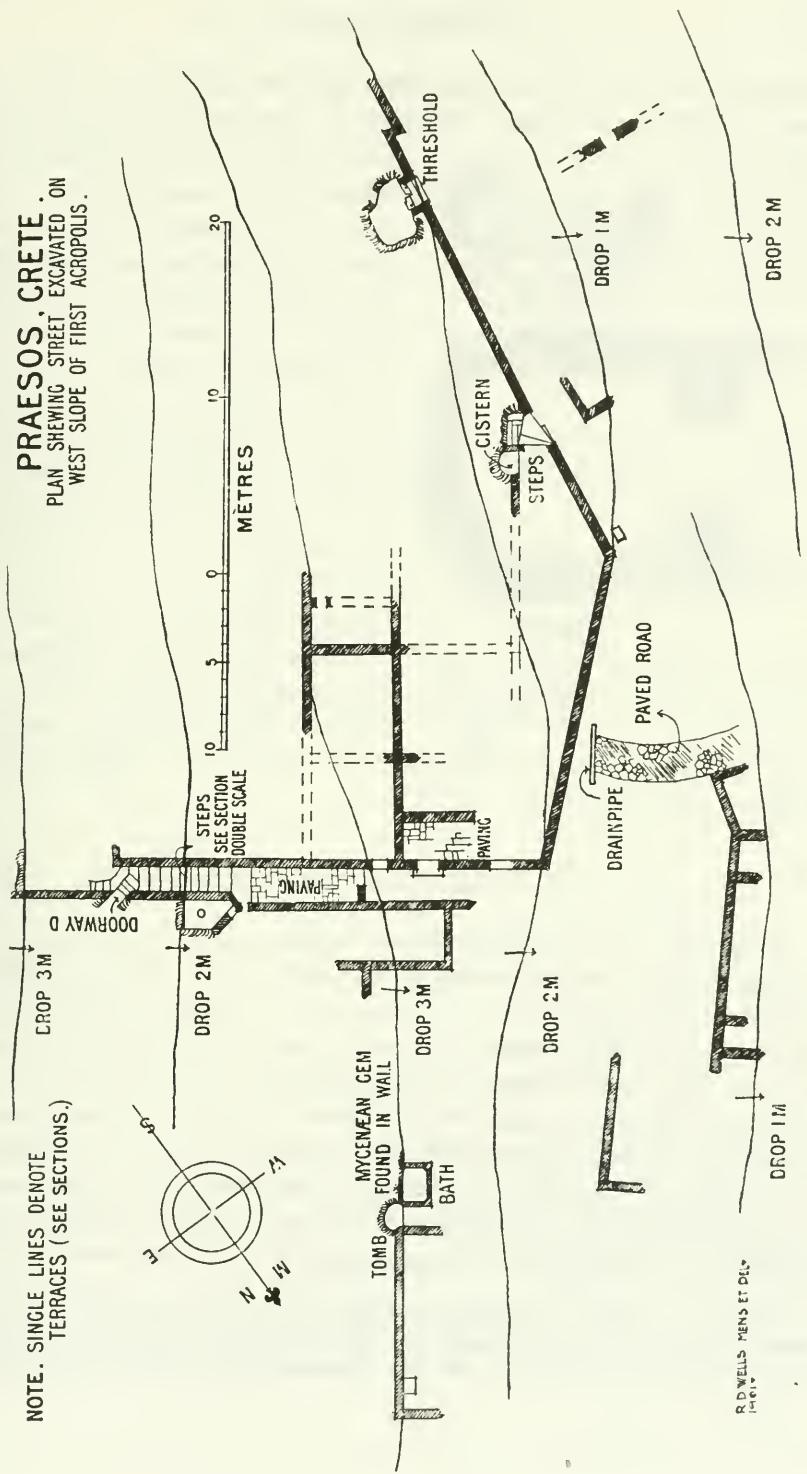


FIG. 24.—REMAINS OF HELLENISTIC HOUSES ON THE FIRST ACROPOLIS.

senting vegetation, and a tuft of grass before the bull's head. The man's figure is stiff and awkward; the bull is excellently done. It is noteworthy that the line of the bull's back follows that of a natural band in the agate. A comparison with the gems found in the Vaphio tomb, particularly with one representing wild boars couched in a swamp, reveals interesting points of contact.

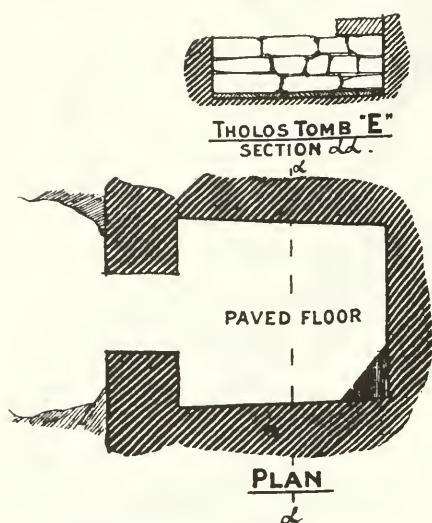


FIG. 26.—TOMB E. (Scale about 1 : 80).

probably a Mycenaean tomb, but beyond earth and stones nothing whatever was found in or around it.

### § 9.—THE ALTAR-HILL (THIRD ACROPOLIS).

In this excavation both Professor Halbherr and the country people had been before us, under circumstances which I have already explained. The former had opened up a rich stratum of votive bronzes and terracottas under and round about a primitive altar, 'built probably of earth, and surrounded by four walls or simply supported on two parapets at the two sides which look towards the declivities of the hill.' These parapets, 'composed of a single course of blocks standing on a very simple foundation of compact earth and small stones' were destroyed by the peasants who dug here during the disorders of 1896. Professor Halbherr's clear description of the site and of his operations on it,<sup>1</sup> which had long been

<sup>1</sup> In *A.J.A.* v. (1901), pp. 375-384. It should be noticed that in his plan (*Fig. 6—The Summit of the Acropolis C at Praesus*) North is turned to the left, East to the top of the page, while in our plan (Fig. 27) North is to the top. His plan includes the full extent of the hill-top

ready for the press, was not published until after our work was done and our plan engraved.

The chief object of our excavation was to search for further inscriptions in the Eteocretan language. The method adopted was to clear the whole hill-top, a plateau measuring 50 m. from north to south and 60 m. from east to west, bounded on three sides by precipices and easily accessible only from the north. It soon appeared that this north side had been closed by a wall of small stones mixed with mud-mortar, which at the east end loses itself among rocks and at the west returns so as to cover a part of that side which is less precipitous than the rest. Parallel to it at a distance of 2·70 m. to the south are the foundations of a similar wall, forming one side of a long building now in great part destroyed. Near the east end of the north wall is the entrance to the *temenos*, a

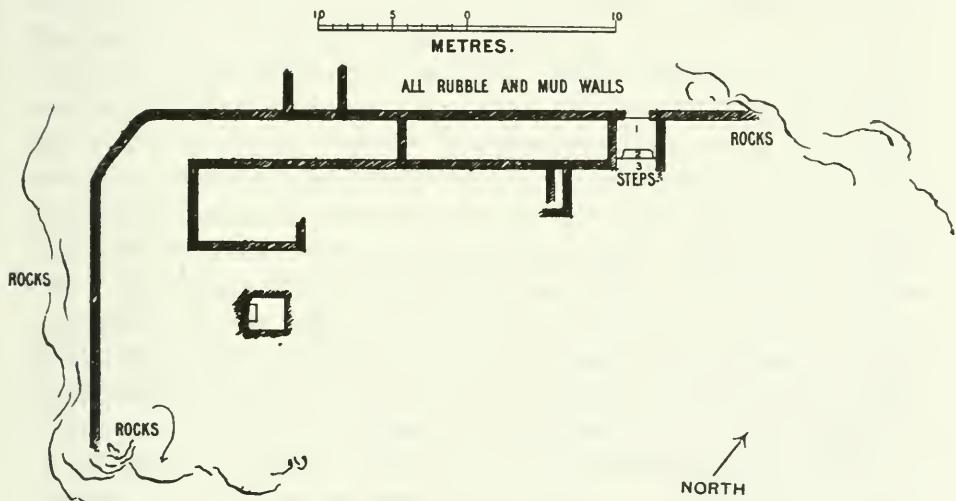


FIG. 27.—WALLS EXCAVATED ON THE ALTAR-HILL.

passage 2·80 m. wide with a narrower doorway and three steps up; it was here, lying on the steps, that we found the Eteocretan inscription of which Professor Conway has kindly undertaken the publication in the present *Annual* (p. 125). Further down the hill, outside the *temenos*, there

from North to South, omitting the western part; ours gives the full extent from East to West, omitting the southern part where we found no depth of earth and no remains. On our map of the site (Pl. VII) the *temenos*-wall has, by an unaccountable error, been made to face the precipice on the East instead of the slope on the North

came to light fragments of Greek inscriptions in a still more shattered condition, and the mask of a huge life-sized terracotta lion of which other fragments had been found within the enclosure—speaking proofs of a violent and wanton wrecking of the sanctuary.

The pits dug by our predecessors lay south and east of this entrance; some of the freestone blocks that had formed the parapet of the altar were strewn about them. Here the votive deposit was exhausted, but south and south-west of the steps we came on undisturbed patches in which terra-cottas, bronzes and pottery lay mixed with burned matter and fragments of bone. We traced this deposit under the foundations of the buildings to the west and up to the *temenos*-wall, the foundations of which go down to the rock. There was no true stratification. So far as I could judge, the deposit had not taken its present form as the result of gradual accumulation, but was rather due to an artificial levelling of the ground and burying of old offerings undertaken when the *temenos*-wall and the inner structures, clearly contemporary with it, were built. The large terracotta heads of a lion and of a young man (Plate XIII.), which were dug out intact, greatly to the credit of our raw workers, come from this *stratum* of buried offerings. Fragments of the lion's body were recovered from points several metres apart; of the rest of the human figure not a trace could be found. Hence also came the bronze miniature armour, a considerable quantity of geometric pottery, an Attic *kleinmeister* kylix, and all the terracotta figures, with the exception of the largest lion. There was nothing which need be later than the fifth century in this well-defined black layer; on the other hand the fact that it extended under the walls on the west showed that they could not be earlier.

The evidence afforded by the excavation may be summed up as follows:—The principal *stratum* of terracottas, bronzes, and pottery, represents a cult which flourished from the eighth or seventh to the fifth century, and had for its centre a primitive altar on a bare hill-top.<sup>1</sup> The votive offerings most in fashion were on the one hand terracotta figures of men, women, lions and bulls, on the other, weapons and armour both real and miniature. We do not know how the larger offerings were deposited; some of the model helmets, cuirasses, and shields, had been slipped into

<sup>1</sup> The earliest object found on the hill is a steatite bowl, probably of Mycenaean date. There was no Mycenaean pottery, however, and the bowl may have been brought there at any time. Last year I found a similar steatite vessel, which had been discovered in an early grave, in use as a lamp in a church near Palaikastro.

crevices between or under the loose masses of limestone which encumbered the ground about the altar.

The construction of the *temenos*-wall and inner-buildings, including perhaps the altar-parapet, may belong to the late fifth or early fourth century. The plainly-constructed inner buildings were stores for *ἀνθήματα* or priests' houses. When the sanctuary was finally ruined the chamber at the west end contained cauldrons of thin sheet-bronze—part, perhaps, of the sacrificial furniture.

Professor Halbherr argues that the cult which had its home upon the Altar-hill was 'a worship of ancient origin, practised without a temple in the midst of the wildness of nature.'<sup>1</sup> As regards the early period I believe him to be right, but there are indications that the *temenos* of the later period enclosed a small temple as well as an altar. Some architectural details (lion-head gargoyles, antefixes, and anthemia), which can hardly be interpreted otherwise, will be figured and discussed in the fuller publication of the terracottas. The only spot where a temple can have stood is a rectangle of levelled rock,<sup>2</sup> 13 m. by 9, in the south-east quarter of the plateau. If it be asked what has become of its materials, we may point to the squared blocks in the field-walls below, blocks of the same freestone as the altar-parapet, and conjecture with Professor Halbherr, who saw pieces of columns here in 1884, that they have fallen—or been thrown—from the overhanging plateau. The razing of the temple to the ground and the dispersion of its members may be imputed, along with the mutilation of the inscribed *stelai*, to the destructive fury of the foes who conquered Praesos somewhere about 140 B.C. and made it no more a city. *Κατέσκαψαν Ἱεραπύτνιοι*, says Strabo.

We have no means of determining to what deity the Altar-hill was dedicated. The prominent place taken by figures of lions among the votive offerings ought to furnish a clue; but as there is reason to hope that further discoveries may extend our knowledge of Eteocretan religion, it is better not to waste time in speculation. One of the terracotta antefixes bears a remarkable design of a woman in a Doric chiton holding a snake in either hand.

<sup>1</sup> *A.J.A.* l. c. p. 379.

<sup>2</sup> First discovered by Prof. Halbherr, who saw in it the meeting-place of a sacred assembly, or a place for ritual dancing.

## § 10.—THE BRONZES FOUND ON THE ALTAR-HILL.

Plate X. represents the best of an interesting series of votive models of armour.

*Helmets*.—Six complete and fragments of others. They all consist of two pieces of sheet-bronze cut and bent into shape, and riveted together at the top and back. Five of them have a high crest and a small square face-opening. The sixth and largest is of true Corinthian shape with advanced cheek-pieces; it had a crest and the usual nasal, but these are broken off.

For this primitive type of helmet compare Conze, *Melische Thongefäße*, Taf. iii.

*Cuirasses*.—Ten half-cuirasses (*γύαλα*) and one complete example with breast-plate and back-plate still united at the shoulders. The latter, not shown on the plate, bears the same engraved ornamentation as one of the half-cuirasses found at Praesos by Halbherr. (*A. J. A.* 1901, p. 384, Fig. 13) consisting of a volute over each breast and an omega-curve below. Cuirasses of this form and engraved with this conventional pattern were used in Greece from the end of the seventh century. They are seen on the François-vase, on the Rhodian plate with the combat of Euphorbus and Menelaus, and on the 'Tyrrhenian' amphorae (Attic products of 600—650 B.C.), and are common in later black-figured pictures, but are superseded in the early part of the fifth century by the more elaborate cuirass with movable shoulder-pieces which was clasped at the front instead of at the sides. Pausanias x. 26. 2 notes that a *θώραξ* of this archaic type appeared in the Iliupersis of Polygnotus. One of the rare instances on a red-figured vase is Gerhard *A. V.* iii. 201.

*Loin-guards*.—Seven whole, besides many fragments. These semicircular plates have been found more often in Crete than on the mainland. The Candia Museum possesses a fine example, presented by M. Triphyllos of Rethymnos, with a group of figures engraved in sixth-century style. Six examples, the largest 29 in. long and 15 deep, came to light in excavations at Axos. They have sometimes been explained as pectorals, worn to guard that part of the chest which was exposed by the deep neck-opening of the *thorax*. I prefer a suggestion made by Furtwängler in publishing a large plain example found at Olympia (*Die Bronzen*, Taf. ix. 985, Textband iv. p. 158) that it was attached to the girdle of the *chiton* under the cuirass and hung like an apron to protect the lower part of the abdomen.

The Praesos loin-guards have three rings in their upper edge; in the specimen from Olympia the middle part of the upper edge is missing, but there is a ring at each end. A smaller example found at Olympia has small holes all round its margin, and seems to have been mounted on leather.

*Shields*.—Between thirty and forty bronze discs, whole and in fragments, some of which are certainly models of shields. I have reproduced at the bottom of Plate X. specimens of two common types, the one perfectly plain and slightly convex, the other with a narrow flat rim. A third type has a raised central *umbo*; one example occurred in the Dictaeon cave and several in the cave on Ida. (*B.S.A.* vi. 109, Fig. 41. on right).

I have included in Plate X. two terracotta shields found in the same deposit. The larger, placed below the largest loin-guard, is quite plain, the other (above on the right) has two circles of red paint. Neither has any handle on the inside.

Besides these miniature offerings there were pieces of real armour—a Corinthian helmet, greaves, loin-guards and the central part of a shield decorated with

concentric circles, all crushed and in miserable condition : the tapering butt of a lance (*σαυρώτηρ*) square in section and 17 cm. long (*Olympia, Bronzen*, Taf. lxiv. 1050), and parts of others, one of them round, (*ib.* 1066) : three arrowheads : and tattered pieces of bronze plate, some of which may be the remains of full-sized cuirasses.

The remains of vessels include part of the ring-handle of a tripod, like that found on the same spot by Halbherr (*loc. cit.* p. 383 Fig. 12) : a cauldron-handle and large shreds of cauldrons of hammered bronze : a vase-support in the form of a hoop with ovolo decoration resting on three claw-feet (cf. Carapanos, *Dodona*, Pl. xli. 112) ; and seven or eight little T-shaped objects, possibly vase-handles, like *Ol. Br.* Taf. xxxv. 666.

Among other bronze objects may be noted a hammer-head 7 cm. long : three olive-leaves which must have formed part of votive wreaths (cf. *Ol. Br.* Taf. lxvi. 1173) : part of a fibula, (length preserved 11 cm.), the nearly semicircular bow expanding and becoming hexagonal in section : a fish-hook ; a bodkin ; a pair of tweezers ; and a great number of plain rings, nails, and studs.

The only coins found on the Altar-hill are a didrachm of Cyrene and a base didrachm of Phalasarna (Wroth, *B.M. Cat. Crete*. Pl. xvi. 7, Svoronos, *Num. de la Crète*, Pl. xxv. 5).

Among the objects in other materials are the leg of a marble statuette (knee to ankle, 10 m), two button-like discs and a toggle of bone, and part of an aryballos of striped glass.

The terracottas are discussed by Mr. E. S. Forster in a separate paper.

## § 11.—THE HELLENISTIC HOUSE ON THE ALMOND-TREE SITE.

(PLATES XI. AND XII.)

This was the best constructed of the buildings which we examined within the town, and the only one that was well enough preserved to merit complete excavation. It is a compact block of irregular outline lying on the north-western slope of the First Acropolis, a few yards to the east of the saddle-like depression on which there is some reason to place the ancient Agora. Its front-wall, which owing to the declivity is a retaining wall, stands to-day three metres high, and the back-wall within the house is preserved to a height of two and a half metres. The ruins of insignificant houses on a lower terrace to the west had dammed back the covering of earth so effectually that not a stone of the existing building was in sight before the excavation, although scattered blocks of unusual size and finish attested that an important edifice had stood hereabouts. In the last week of May a trial-pit sunk through a threshing-floor struck upon an oblong stone tank, and a trench carried southwards from it exposed a doorway with massive jambs. Then a part of the imposing west front, worthy of a public building, came into view. (Pl. XII. 1.) Three weeks later, when

a systematic search by means of trial-pits and trenches had failed to find any structure comparable to it in workmanship or preservation, I decided to clear it entirely, and this was done between June 17th and July 3rd. Care was taken so to dispose of the earth and stones as to improve the surrounding property, broad new terraces being formed on the slope below, which had been a mere moraine of tumbled ruins. In recognition of this betterment the Moslem proprietors, who had dealt throughout in a most friendly spirit, were content to name a nominal price for the freehold ; and the excavated area, twenty metres by thirty, was purchased, fenced in, and made over to the Cretan government. An old almond-tree growing in the south-west angle had afforded us shade during the midsummer heats. We were able to preserve its roots unharmed, and for many years to come its green boughs, a rare sight on that arid plateau, will guide the traveller to the monument which bears its name.

The coins found in the Almond-tree house range from the fourth to the second century B. C. A detailed list is given below. The peculiarities of its plan (see Plate XI.) show that the architect had to take account of existing streets ; he had to sacrifice regularity of plan in the smaller rooms, in order to make the large rooms 9 and 4 approximately rectangular. (See the Plan, Plate XI.) To the north-east he has encroached on earlier houses, while the houses on the lower terrace to the north-west are contemporary or of later date. It follows that the house does not belong to an early stage in the city's history. The pottery found in it, and the comparatively unworn condition of the thresholds, suggest the third rather than the fourth century as the period of its construction.

Its original destination cannot be determined. The massive carefully dressed masonry is such as we should expect in a public building rather than in a private house of so remote and poor a city. The doorways are considerably wider than those with which we met in other houses at Praesos. Was it a public guest-house or *κοιμητήριον* such as is mentioned by Dosiadas (in Athenaeus, iv. 143 b) in his description of the Cretan *συσσιτία* ?

*Εἰσὶ δὲ πανταχοῦ κατὰ τὴν Κρήτην οἰκοι δύο ταῖς συσσιτίαις, ὡν τὸν μὲν καλούσιν ἀνδρεῖον<sup>1</sup> τὸν δ' ἄλλον ἐν ᾧ τοὺς ξένους κοιμίζονται κοιμητήριον προσαγορεύουσι.*

<sup>1</sup> The ἀνδρεῖον is mentioned in *C.I.G.* 2554, l. 51 (Treaty between Olous and Lato), and 2556, l. 37 (treaty between Hierapetra and Priansus).

All that we can say with certainty is that for some time before it was ruined and abandoned certain rooms were in use as an oil-factory. It may have been built as a summer residence by some rich citizen; the position of the largest room, 9, at the northern angle of the building, is significant of a desire to escape from the sun. But it seems more likely that it was originally intended to serve a public purpose, and then by some vicissitude fell into private hands, becoming little better than a farmhouse.

Mr. Douglas Wells has furnished the following architectural notes :

The main walls of the building are of ashlar, built in uneven courses, the blocks being drafted for about an inch and a half and faced with a chisel. The stone is a calcareous limestone, of a soft creamy tint when quarried, weathering to a very hard material of a grey-blue colour. Lime mortar has been used, but the joints are so fine that it is difficult to get the blade of a knife in between them.

The partition-walls are built of rough rubble with a large proportion of mud. No bonding occurs either between them and the main walls, or with each other, there are straight joints in every case. The lower part of the walls at the back of the building is cut out of the solid rock on which the whole structure was laid.

Patches of cobble paving remained, but the rest of the floor was either rock or a hard clay subsoil.

The roof had been tiled, quantities of plain tiles and cover-tiles (see Fig. 28) being found over all the floors.

The walls were finished on the inside with plaster.

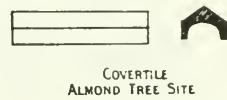


FIG. 28.

Ascending the rock-cut street 'P,' six feet wide, which mounts steeply from the Agora, we reach a point where a narrow lane branches off to the right; on the left is a paved recess which forms the forecourt of the house to be described. The street continues up the hill in a series of broad shallow steps, and is joined from the left by another, 'O' on the Plan, which skirts the back wall of the house. From the forecourt a doorway facing the street leads into the vestibule 7, and one on the right into the triangular room 5, while on the left a flight of eleven steps descends to a narrow basement and to room 6 opening off it, beyond which there is a cave-like cellar hewn in the rock below the little forecourt (see Section N-N); over 6 there may have been another room, of which no trace now remains, entered by a door opposite to the entrance of 5. This grouping of the entrances makes it practically certain that the whole block including rooms 1-9 formed one dwelling. It consisted of two separate parts, the series 7, 8, 9, 2, 1, which seem to have been living rooms, and 5, 4, 3, which were work-rooms. There was an upper storey, reached by a stair from 3.

Before passing to the interior it will be convenient to describe some external features.

In the high front-wall of the house are two water-spouts, issuing from just below the floor-level of rooms 7 and 8, and discharging into the basement mentioned above. They are projecting bosses  $17\text{ m.}$  square with a champered face and round orifice, worked in the centre of ashlar blocks of the eighth course from the rock. This course is destroyed further north, but it is probable that the spouts were repeated at regular intervals. The wall below the southernmost of the two which remain is much weathered by the dripping water; it may have been the outfall of a sink in the adjacent corner of room 7.

In the same wall there are three beam-holes, cut about a metre apart,

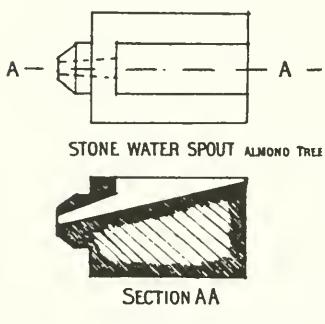


FIG. 29.

for beams  $25\text{ m.}$  broad and  $20\text{ m.}$  thick. Almost under the southernmost is a rebate in the base-course intended to receive a wooden post. They are rudely cut, crossing the joints between the courses, and evidently belong to some structure, posterior to the rest of the house, which was erected in the basement. (See Plate XII, Fig. 1.)

Among the fallen blocks which choked the two narrow basements in front of the house were a waterspout and two window-

heads, all in the same limestone as was used for the ashlar-work. They are shown in Figs. 29 and 30. To judge from the positions in which they were found, both windows belonged to room 9. They were  $35\text{ m.}$  wide, and had been furnished with wooden shutters turning on pivots like the doors. Here also were found some stone cornice-blocks.

Turning to the internal arrangements, we find nothing of interest in room 7 except a roughly hollowed circular mortar. The doorway between 7 and 8, the real front door of the house, is more carefully finished than the others, and the stone jambs characteristic of all Praesian houses are here more massive than usual. The threshold, details of which are given in Figure 30, is much like that of a late Hellenistic house at Delos (*B.C.H.* xix. Pl. V.). The position of the hole for the bolt shows that the right-hand half of the two-leaved door was opened first, as is also the modern practice. The sockets for bolts and door-pivots were fixed in wooden

# PRAESESOS SITIA CRETE.

*Architectural Fragments from Almond Tree Site, 1<sup>st</sup> Acropolis & the Saddle.*



CORNICE

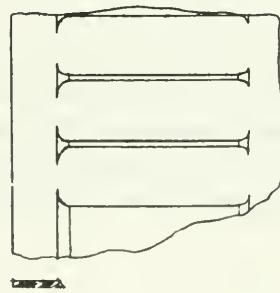


TRIGLYPH

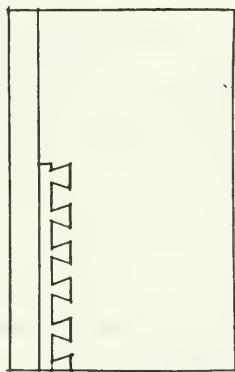


CAP TO ANTAE

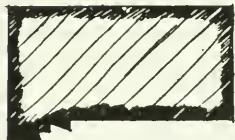
1<sup>st</sup> ACROPOLIS :— ( ALL IN LIME STONE )



TRIGLYPH OF EARLY PERIOD  
from 'The Saddle'



PART OF A DORIC FRIEZE  
from 'The Saddle'.



SECTION

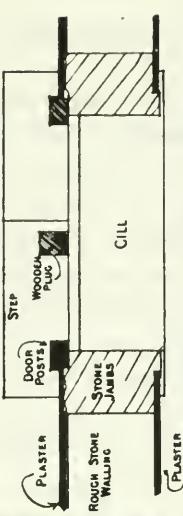
DOOR ARCHITRAVE SECTION.



DOOR ARCHITRAVE  
ELEVATION  
(to small scale)



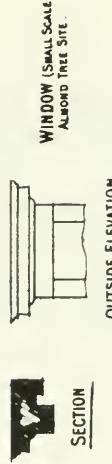
FEET



SECTION OF DOORWAY showing INTERNAL & EXTERNAL FINISH.  
Floor Level Inside — — — — — Level of Vestibule



SECTION THRO' STEP & CILL  
Almond Tree Site (Small Scale)

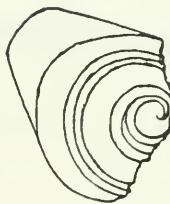


SECTION  
OUTSIDE ELEVATION

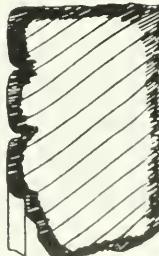


PLAN LOOKING UP  
(Sketched to Scale)  
 $F = \frac{1}{32}$

VOLUME OF IONIC CAP  
(Sketched to Scale)



SECTION OF TRIGLYPH (THE SADDLE)



10 5 0 40 30 20 10 80 70 60 40 100 CENT.

FIG. 30.—ARCHITECTURAL DETAILS.

plugs. There is a similar sill with three mortices in the doorway between 4 and 5, and another belonging probably to the door of 7 was found in the forecourt.

Room 9, the largest, measures 10·40 m. by 8·70 and was the principal living-room. The cross-wall marked on the plan does not now project above the clay floor; being better finished on the south side it seems to indicate an original difference of level between the floor near the entrance and the larger area beyond, which formed a dais rising about six inches above it; a later levelling-up obliterated this arrangement. A mass of broken pottery was found in the south angle of this room, chiefly pieces of large storage-jars; they did not form complete vessels, but had been brought there for some purpose as fragments. Similar jars, which had been in use when the house was abandoned, were found in rooms 8, 9, and 2, crushed by the fall of the roof. The wall separating 2 and 1 is a late addition, perhaps contemporary with the blocking-up of a doorway in the north wall of the former.

Returning to the entrance and crossing the triangular vestibule we reach a large room, 4, which has a door-sill resembling that of 8, and measures 9·60 m. by 8·35 m. A low platform about 1·10 m. broad and .20 high seems to have extended all round the room; the surviving parts of it are the stone slabs marked in the Plan. In the middle are remains of an oblong tank or vat, wrongly described in the Plan as an *impluvium*: the ends are destroyed, but the sides, each formed of a single slab, are still in position; the floor consists of cobblestones bedded in clay. It was surrounded and strengthened by a stone plinth .32 wide and .25 high, two blocks of which are still in place. A use for this receptacle is suggested by the presence of an oil-press in the same room; it may have been a vat for the storage of oil, for which purpose it would probably be lined with lead. A rebate along the rim of the side-slabs shows that it had a wooden lid, such as would be necessary for the protection of the oil from dust. Internally it measured 1·50 m. in length, 1·05 in width, and nearly .40 in depth.

The position of the oil-press is determined by two beam-holes in the wall, to the right of the entrance. A stone press-bed was discovered close by on the raised platform already mentioned; the plan (Pl. XI.) shows it in the position in which it was discovered, with its spout turned towards the corner. On it lay a small greenstone celt which was certainly left

there when the house was abandoned. It may have been picked up and preserved as an amulet. If so, it is an interesting indication of superstitious ideas attached to *ἀστροπελέκια* in Hellenistic times.

Figure 32, sketched by Mr. Comyn, shows the press-bed replaced on a block found *in situ* under the beam-holes, but it is clear that a part of the substructure is missing and that the press-bed when in use was raised nearer to the beam. The apparatus was of the kind described by Messrs. Paton and Myres in *J.H.S.* xviii. 209—217. The press-bed, a neatly

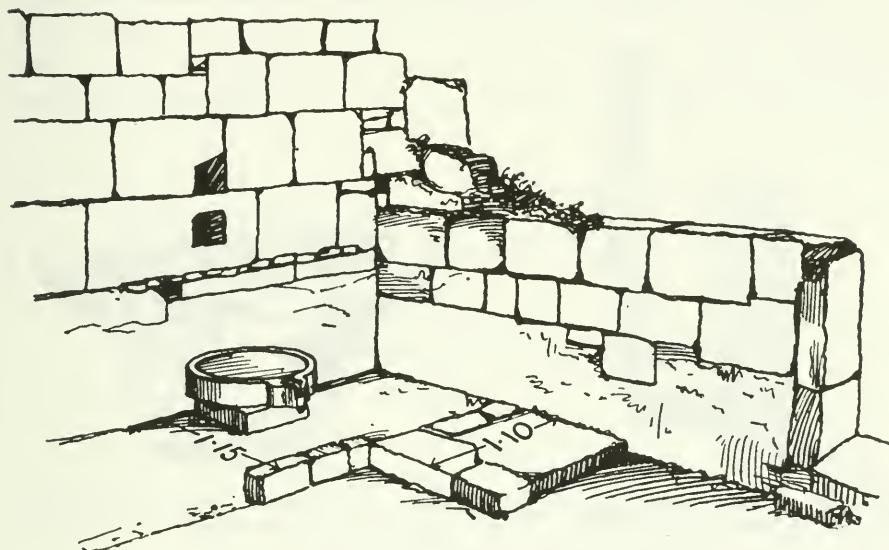


FIG. 31.—OIL-PRESS IN ROOM 4.

worked circular slab of limestone 1.74 m. in diameter, has the usual ring-channel on its upper surface deepening towards the point where it issues through a heart-shaped spout, which projects .09 m. The narrowness of the margin surrounding the sunk ring-channel distinguishes this example from most of those described by Messrs. Paton and Myres, and suggests that the olives pressed on it were not packed in bags, as was and is a common practice, but in folded squares of grass-fibre such as are still used in Crete and bear the name of *μαλαθούνια*. The packer works at a raised counter, and it is astonishing to see with what speed he fills the outspread cloth with a flat cake of olive-pulp, previously crushed in a horse-mill,

drenches it with hot water, folds over the corners envelope-fashion, and piles them a dozen at a time on to the press-bed, called *κατωμαγγίνα*. This method seems to have been used in Attica about 500 B.C. Mr. Cecil Smith recently published a black-figured vase on which two men are depicted forcing down the beam of an oil-press (*Forman Collection Sale Catalogue*, No. 323). The drawing (Fig. 33) which his kindness allows me to republish here shows that the mass between the press-bed and the beam is divided by eight horizontal white lines; I have very little doubt that they represent just such a pile of flat envelopes as I have described.

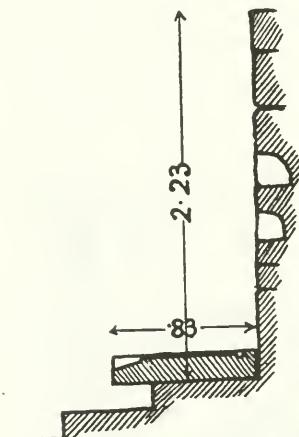


FIG. 32.—OIL-PRESS IN ROOM 4:  
SECTION OF WALL AND PRESS-BED.



FIG. 33.—ATHENIAN VASE WITH SCENE OF  
OIL-PRESSING.

The form of our press-bed makes it probable that the same method was in vogue at Praesos in the second century B.C. But there is evidence that a different one had been in use not long before.

On the outer faces of the two slabs already described as forming the sides of the vat in the middle of the room there are cut certain channels which prove that they were once united. Fig. 34 shows how they would appear if placed in juxtaposition. Together they compose an oblong press-bed furnished with a circular channel spout of the usual kind besides some subsidiary channels intended to prevent the escape of oil which overflowed to either side. The slab has not only been sawn in two, but curtailed in length; it is evident that the small channel on the right is only the end of a diagonal drain which extended much further,

and it is probable that something has been cut off at the left hand also. It must have sloped forward, so that the escaping oil tended to run to the front ; the subsidiary channels were contrived to intercept and conduct it to a point near the principal outfall.

It is not unlikely that this cumbrous oblong slab was displaced in favour of the handy and portable circular press-bed in consequence of the introduction of a new method which was more effectual in confining the olive-kernels to the central area (diameter .48 m. in the round press, .63 in the large one) and made it unnecessary to guard against an overflow. The older method may have been to crush the olives in a single bag which would spread out under pressure—hence the wide margin ; the improvement may have lain in the adoption of cloth envelopes. These would

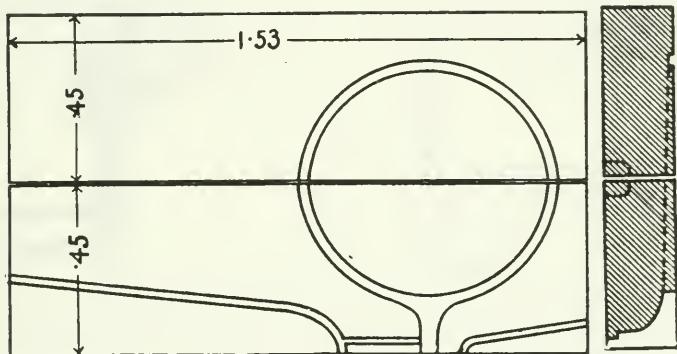


FIG. 34.—PLAN AND SECTION OF OLDER PRESS-BED.

occupy more place vertically than the single bag and might necessitate the raising of the beam-hole ; hence perhaps the second beam-hole seen in Fig. 31. The old press-bed was turned to account in the construction of a vat, probably for the storage of oil ; we have seen that it was provided with a lid, which, as modern experience shows, is indispensable for the exclusion of dust. I have refrained from speculating on the means by which the pressure was applied. In the vase-painting a man is seen tying two huge weights to the end of the beam, while another has added his own weight to it, clinging in mid-air. The combination of beam and screw figured by Messrs. Paton and Myres (*loc. cit.*, p. 210) seems to be mentioned by Pliny in his obscure description of

oil-pressing machinery (*N.H.*, xviii. 317) as having come into use about a century before his own day. He calls it *Graecanica*; it may have been known in the Levant considerably earlier than in Italy, and it is possible that a large block with a deep round mortice in the centre of its upper surface, placed on a raised platform in the other side of the doorway of room 4 and marked *stone buttress* on the plan, may have played a part here.

Room 9 had been used as a store-room and contained remains of numerous *pithoi*. To the right of the door was found a well-preserved group of three large vases (Pl. XII. Fig. 2, foreground, on the left), a broken

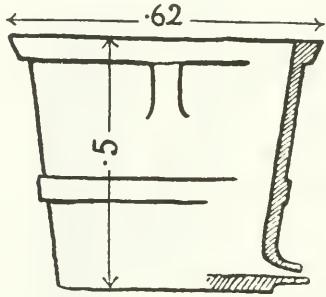


FIG. 35.—OIL-SEPARATOR FROM HOUSE AT PRAESOS.

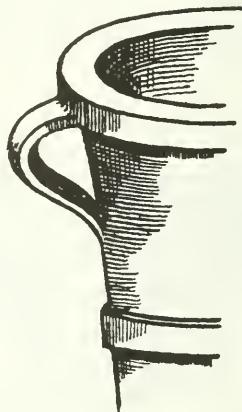


FIG. 36.—OIL-SEPARATOR: SKETCH OF HANDLE.

*pithos*, an amphora with pointed base, and the two-handled jar shown in Fig. 35. It is pail-shaped, and has a projecting spout flush with its bottom. There can be little doubt as to its use. In the modern process the olive kernels, before being pressed, are drenched with hot water, and the product after pressing contains more water than oil. The oil in due course separates itself and rises to the surface, and it is necessary either to bale it out from the top or to drain away the water from the bottom. The former method is slow and primitive; I was surprised to see it practised last November in the province of Mylopotamo. The latter is in general use, large and complicated separating-tanks being constructed on this principle; the Praesos jar illustrates the simplest form of it, in which after the contents have been allowed to stand some time, the tap is set running and the

water escapes, a watcher being ready to stop the flow and change the recipient as soon as oil appears.

From this room a staircase ascended to the upper floor, or to the roof. The three lowest steps were of stone, '90 m. wide ; the remainder were no doubt of wood.

*Minor Finds.—Pottery.* Fragments of coarse *pithoi* were numerous in rooms 3 and 9. The former yielded the only inscribed potsherd, part of the rim of a jar which had an aperture at the mouth of about '35 m. The rim itself is '05 wide and has the name

ΤΑΝCΩΝΟC

deeply incised on its upper surface in letters '025 high. The mutilated letter is certainly a Π ; it is impossible to say whether others preceded it, since in spite of repeated search no other fragment of this rim was discovered. The finer wares were almost wholly wanting. Besides one fragment of red figure and one of geometric pottery, which had drifted in with earth from the slopes above, there were a few bits of Hellenistic black-glazed cups and plates, and one fragment of this ware with a female head in high relief.

*Coin.*—The diameter is given in millimetres.

1. AR 25. Apta. *Obv.* ΑΠΤΑΡΑΙΩΝ. Head of Artemis r. The artist's name ΡΥΘΟΔΩΡΟΥ is just legible. *Rev.* ΠΤΟΛΙ ΟΙ ΚΟΣ. Warrior, armed

with helmet, cuirass, shield and spear, standing l., raising his r. hand towards a tree. Wroth, *Brit. Mus. Cat. Crete, etc.*, p. 8 (1), Pl. ii. 3. Svoronos, *Numismatique de la Crète Ancienne*, p. 15, (5), Pl. i. 10.

2. AR 19. Itanos. *Obv.* Helmeted head of Athena l. *Rev.* Eagle l., looking back, in incuse square. Svoronos p. 204 (26), Pl. xix. 12.

3. AR 13. Itanos. *Obv.* defaced. *Rev.* Star.

4. AR 20. Praesos. *Obv.* Female head l. *Rev.* Bull's head. Svoronos p. 292 (48), Pl. xxviii. 18.

5. AR 19. Praesos. *Obv.* Female head r. *Rev.* Bull's head. Svoronos p. 292 (46), Pl. xxviii. 17.

6. AE 15. Praesos. *Obv.* Head of Apollo r. *Rev.* ΠΡΑΙ ΣΙΩΝ Thunderbolt.

Svoronos, p. 292 (49), Pl. xxviii. 20. Wroth, p. 72 (16), Pl. xviii. 5.

7. AR 15. Thebes. *Obv.* Buckler. *Rev.* Cantharos.

*Bronze.*—Neck and foot of a small oinochoe. Socketed arrowhead, '042 long. Socketed hook (from a spindle?). Stud with flat round head, from one margin of which projects a small loop. Disc, '15 m. in diameter, '001 thick, with lead rivet

at centre. Bolt .05 long and .012 thick. Four nails, respectively .13, .05, .05, .045 long. Numerous broken nails and miscellaneous fragments. Disc .07 in diameter (mirror-cover?). Small figure of couchant lion, .09 long, pierced through back and head. Conical bolt-head, with remains of iron bolt.

*Lead*.—Massive rivet, used for mending a *pithos*.

*Glass*.—One fragment of a vase. 21 large and small blue beads, mostly dark blue. Two long cylindrical beads. Fragments of an intaglio of glass paste.

*Miscellaneous*.—Pieces of resin (for sealing jars?). A water-worn pebble of singular form, pierced for suspension. Marble knob, probably from the lid of a pyxis. Three fragments of rock crystal and six of obsidian. Four minute discs of polished bone. Two stone beads. Part of an amygdaloid cornelian intaglio of the common sub-Mycenaean type with a decoration of meaningless wheel-cut lines.

R. C. BOSANQUET.

## PRAESOS.

### THE TERRA-COTTAS.

(PLATES XIII.-XIV.)

#### § 1.—INTRODUCTORY.

THE large find of terra-cottas made by the British School in 1901, and now in the Museum at Candia, having been handed over to me by Mr. Bosanquet for publication, I hope at some future date to give a more detailed and critical account of them. Meanwhile my object here is to give a short account of the find as a whole, dealing at greater length with only a few of the larger and more important discoveries.

On two occasions previous to 1901 excavations had been made at Praesos resulting in the discovery of a large number of terra-cottas. Before the Cretan Revolution Prof. F. Halbherr carried out a short excavation<sup>1</sup> on two sites, one on the Altar Hill (called by him the 'Third Acropolis'), the other near the fountain at Vavéloff. Secondly, during the Revolution the peasants made extensive diggings on the same sites and sold their finds which have thus become scattered; a large number, however, were bought by Ambrosius, Bishop of Hierapetra, who has generously presented his collection to the Candia Museum.

In 1901 the British School made more extensive diggings on the two sites where Prof. Halbherr had discovered terra-cottas. Of these the Altar Hill yielded larger and more important discoveries than anything he had found, while the site at Vavéloff yielded as before a large number of characteristic plaques. On two new sites also discoveries of terra-cottas were made. First in a trial pit on the fourth terrace below and to the west of Acropolis I, specimens of the same types of plaques as were found at Vavéloff, and a few other objects were discovered; secondly, a small shrine at the source of the east branch of the Sitia river, called by the natives *Mεσαβρύσις*, yielded a series of *ξόανοι*-like female figures.

<sup>1</sup> For an account of this excavation see *American Journal of Archaeology*, Vol. v. (1901), pp. 371-392 (Plates XI. and XII.).

### § 2.—TERRA-COTTAS FROM THE ALTAR HILL.

The discoveries of terra-cottas on this site include none of the plaques so numerous elsewhere : the site is most remarkable for the number of large figures which it yielded. Of these the most interesting is the bust of a young male figure (Pl. XIII. Fig. 1). The upper part of the body is intact and in excellent preservation, but the lower half has entirely disappeared. The height of the fragment being 26 in. and the width across the shoulders 28 in., the scale is, roughly speaking, three quarters the size of life. The terra-cotta is of a dark brick-red colour, the material of which most of the larger figures from Praesos are made : there are a few traces of a fine slip of pale clay.

The rendering of the face presents in the main the usual characteristics of Archaic Greek sculpture. The forehead is broad and well modelled ; the eyebrows are set unnaturally high above the eyes ; the nose is straight and well formed. The eyes are not yet represented in profile, but merely scratched in outline with a sharp instrument on a sloping surface between the nose and temples, and no attempt is made to render the eyeballs. The artist has not yet grasped the fact that it is through the rendering of the eye that most expression can be imparted to the human face. He has rather sought to produce a lifelike expression by the treatment of the mouth. The upper lip is straight and well formed, particular care being bestowed on the rendering of the philtrum ; the lower lip is arched so as to leave the mouth slightly open, though the artist has not thought it necessary to render the teeth. A heavy furrow in the flesh runs down from the side of the nose and meets a smaller depression near the corner of the mouth. It is these lines which give the face its benevolent, though somewhat vacant expression. The modelling of the chin is perhaps the most striking point in the face : it projects to a very marked extent, and is divided into two parts by a deep depression. The first characteristic can be paralleled in a figure from the series of female dedications ; the second is an exaggeration of the depression of the bone which exists in nature, but is not in most cases visible under the coating of flesh. It is difficult to say whether the chin is thus rendered because the artist wishes to display his knowledge of anatomy, or whether these marked peculiarities really existed ; the former seems the more probable supposition. The form of the ears is

conventional and no channel is represented which could convey sound to the drums of the ear. They are decorated with circular earrings.

The forehead is bound with an ornamental fillet, consisting of two bands decorated with incised lines and fastened together at the top, connected with a band which runs across the back of the head from behind the ears. This ornament seems to represent a fillet of gold leaf covered with a feather-like pattern, imitating a leaf or fern, with a joint or hinge in the centre, such as would be required by the rigidity of the material. From under this fillet the hair is brushed straight and evenly back over the head, with the exception of four long and massive locks, falling over each shoulder and each breast, which have been broken off. Over each breast there still remains a long ribbon-like ridge, which was probably left by the artist to guide him in putting on the locks, which with the ears were added afterwards. Along the top of each shoulder the modelling would be a sufficient guide, and here the continuation of the lock is only indicated by a strip of paler colour where the slip of lighter clay has been pressed. These falling locks, which would break off easily where they are deeply incised, were no doubt torn off for the sake of the ornaments which decorated them, of which the fastening holes are still visible at the sides of the ridges over the chest and on the shoulders. These ornaments were not improbably of spiral form, like the Homeric ἔλικες, which Studniczka<sup>1</sup> has shown to have been commonly worn in the archaic period. Behind the head the hair falls in a regular mass divided by five crosslines to a distance of 12 mm. below the band, widening out at the base where it reaches a width of 15 centimetres. The collar-bone is indicated by lines which meet and are prolonged in a single line marking the division of the chest.

As regards the technique, the figure is certainly modelled, not cast in a mould; the ears, the fillet, and the falling locks are added separately. The rendering of the falling locks, which are not undercut, and of the ears strongly suggests that the artist was trained in wood technique. The two principal tools used seem to have been a sharp point for the incised work and a toothed instrument for the hair. There are air holes behind each shoulder to assist the process of drying.

Some idea of the lower half of our statue may be gathered from a fragment of a small figure (Fig. 1) from the village of Piskecephalo, not far from

<sup>1</sup> See his article, 'Krobylos und Tettiges,' *Jahrbuch*, vol. xi. (1896), pp. 218 ff.

Praesos. This figure wears an apron, which the artist perhaps copied from an imported Egyptian figure, many of which wear a similar garment. The modelling of the knees and shins resembles the bony rendering of the chin of the larger figure.

The wearing of ear-rings by a male figure is remarkable and never found in Greek art, though Pliny (*N.H.* xi. 136) states that both sexes wore

them in the East. Servius (in *Virg. Aen.* i, 30) mentions as remarkable that Achilles in a statue of him at Sigeum in female attire was represented as wearing ear-rings. Again, the mode of dressing the hair cannot be exactly paralleled in early Greek Art. A somewhat similar arrangement is found in the Cleobis and Biton<sup>1</sup> figures at Delphi: but here the hair falls behind the head in separate tresses and not in one mass, while the locks in front are three in number and fall straight down over the breast, and are moreover far shorter.

That the figure represents a god seems to follow from the fact that a diadem is worn: the elaborate arrangement of the hair precludes it from being an athlete.

The importance of this figure lies in the fact that we possess little monumental evidence of Archaic sculpture in Crete. There is literary evidence of an early Cretan school of sculpture which influenced the art of Greece Proper. We

learn from Pausanias (ix. 40, 3) that two wooden images, ascribed like so many primitive *ξόανα* to Daedalus, were shown in his day in Crete, one of Athena at Cnossos and another of Britomartis at Olous, only a day's journey from the Eteocretan territory: in another passage (viii. 53, 7) he says that 'the residence of Daedalus at the court of Minos made the Cretans long famous for the making of wooden images.' Cretan art in the early Archaic period is connected closely with the so-called 'Daedalid' school at Argos and Sicyon, of which the earliest historic members were Endoeus, who is said to have visited Crete, and the Cretans Dipoenus and Scyllis. In their school chryselephantine technique was



FIG. I.—FRAGMENT OF A  
TERRA-COTTA MALE  
FIGURE FROM PISKO-  
KEPHALO.  
1 : 2 Height 13 m.

<sup>1</sup> *Bulletin de Correspondance Hellénique*, vol. 24 (1900), pp. 445-462 (Plates XVIII.-XXI.)

evolved from primitive work in wood,<sup>1</sup> the ivory for which was possibly obtained through Crete, which from the earliest times was in trade communication with Africa; while of their work in stone we can form some idea not only from the well-known figure from Eleutherna, but also, according to a very probable conjecture, from the figures of 'Cleobis and Biton' at Delphi by the Argive Polymedes<sup>2</sup> and a seated figure from Tegea.

At Praesos we may well believe that when art could no longer find its full expression in wood, the local clay, as the material nearest to hand, was adopted in its place, just as clay also was used in south Italy and alabaster at Naucratis. Praesos possessed no marble, and never, as far as we know, imported any. Perhaps, as has been suggested above, the artist who modelled the 'Young God' has not been able quite to free himself from the traditions of wood technique in rendering the ears and falling locks. Again there is a connection with chryselephantine technique in the continuation of the falling locks in metal.

It is more than possible that future excavations on historical sites in Crete may prove that the practice of making large figures in terra-cotta, which has been first revealed at Praesos, was common in other parts of the island.

In the present lack of data about Cretan art, it is difficult to date the Young God; but judging by analogies on the mainland and allowing for backwardness<sup>3</sup> in this far off corner of Crete, the Young God may be conjecturally placed in the first half of the fifth century. Of other human figures from the Altar Hill, we have a fragmentary male figure, probably about 28 centimetres in height, of which the face is missing. The hair falls like a solid wig over the shoulders; the hands rest on the hips: the body shows little modelling, but the legs are well formed.

In another small, cylindrical figure (Fig. 2), the modelling is rough: the head is thrown back and the chin projects like that of the Young God. The spiral drapery is hard to explain, as is the cylindrical object held in the left hand: the right hand is perforated and must have held some offering. The figure may perhaps be explained as a priest engaged in some act of ritual.

A slightly smaller, female figure (Fig. 3), wears a high headdress with a band decorated with seven pendants. The profile is bird-like, and

<sup>1</sup> Overbeck, *Schriftquellen*, 328-338.

<sup>2</sup> B.C.H. loc. cit.

<sup>3</sup> This may be illustrated from the fact that Praesos issued no coins till about 400 B.C.

the modelling shallow. The body is again cylindrical, and the hands which no doubt carried offerings, are held palms upward at the waist.

Of the series of Lions discovered on the Altar-hill the earliest seems to be that illustrated in Fig. 4, which measures 26 mm. from the top of the head to the point where the neck is broken off. The small fragment of the back which remains shows that the lion stood looking three-quarter face to the front. The forms of the head are far removed from nature: the ears are set low down at the sides of the head, and the muzzle ends in a broad flat surface. The animal is represented in the act of growling, so that the skin round the mouth is drawn back and shows the teeth. Of these the canine teeth are correctly rendered, the upper behind the lower: but the molars are conventionally represented one in each jaw, the upper in front of the lower, whereas in nature they are at the back of the mouth,



FIG. 2.—TERRA COTTA FIGURE FROM  
PRAESOS. 1 : 4 (Height 24 m.)



FIG. 3.—TERRA-COTTA FIGURE FROM  
PRAESOS. 1 : 4 (Height 205 m.)

with a row of small and almost invisible teeth along each side of the jaw. The tongue hangs out of the mouth. The upper edge of the mane is rendered by a ridge across the head, decorated with a conventional chevron-like pattern in black paint. The eyes and the marks on the face are represented by ridges covered with paint, which was also used apparently over the whole body. This use of black paint is remarkable and without parallel at Praesos: it is most akin to the technique of a class of far earlier Mycenaean painted animals such as those from the cave of Hermes

Cranaeus. The date of the painted lion must be at least as early as the sixth century B.C.

More striking is the lion whose head is illustrated (Plate XIII. Fig. 2). Other fragments enable his position to be restored (Plate XIV.). He was couchant with his paws stretched in front, and his tail curls over the

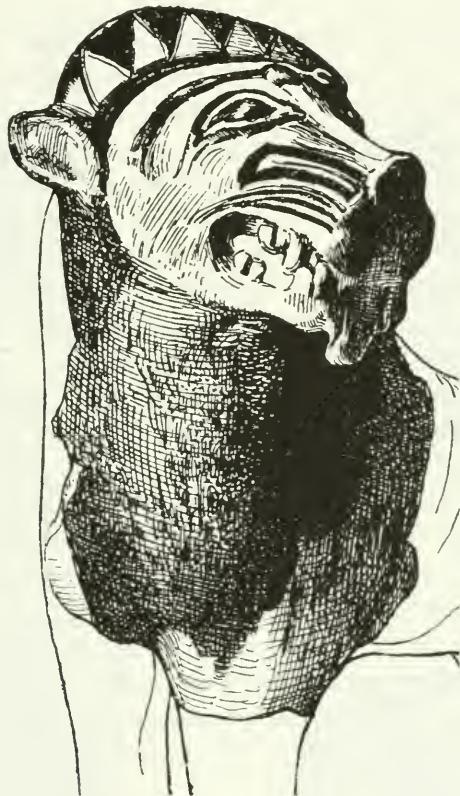


FIG. 4.—PAINTED TERRA-COTTA LION FROM PRAESOS.

left side of his back. The front of the body is covered with leaf-like incised work, forming a strong contrast to the smooth skin on the face, from which it is divided by a fringe of stiff hair. The eyes are deep-set and close together: the whiskers are represented by a regular ribbed pattern, the teeth and the skin at the corners of the mouth are conventionally rendered. The tongue hangs out, as in the earlier figure, and the mouth is slightly open to give an expression of ferocity. The restored figure measures

'34 m. from the ground to the top of the head. In spite of conventionality the head is most striking : it shows archaism at its best. The artist has known what details to omit and what to emphasise, with the result that he has avoided a merely naturalistic treatment and produced a work of spirit and originality. It is of the same material as the Young God and probably a little later in date.

Another terra-cotta lion of at least life size was discovered on the Altar Hill, unfortunately in a very fragmentary condition. The head, however, has been restored, and its dimensions, 40 centimetres in height and 42 in width, give some idea of the great size of the whole figure. It was fastened to a pedestal by pegs driven through holes in the front paws. The modelling is careless and shallow, and the artist must have relied rather on the size than the quality of his work to produce an impression. The figure may date as late as the end of the fourth century.

Lastly, fragments of terra-cotta lion-masks were discovered '28 m. in height and '30 m. in width, which probably served as gargoyles or water-spouts for a wooden building on the Altar-Hill. They are each made in two halves and therefore cast in a mould. They are in no sense works of art and only meant to serve an architectural purpose.

The last class of terra-cottas from this site consists of a number of fragments of oxen. Two heads are intact, one of which with the neck which is very massive and '16 m. in depth, measures '16 m. Between the horns is a rosette, and deeply incised lines have been worked with a sharp instrument round the eyes and nose. One complete bull, very roughly modelled, on a much smaller scale, measures 11 centimetres in height and 21 in length; similar figures have been discovered in several sites in Crete, notably at Goula.

### § 3.—THE SHRINE AT Μεσαβρύσις.

On this site, where there are the foundations of a small temple, possibly dedicated to the deity of the stream, was found an interesting series of *ξόανον*-like female figures. The majority of these are too fragmentary to be restored : but the upper half of two figures, the smaller of which is illustrated here (Fig. 5), and the lower halves of two others (Figs. 6 and 7), give some idea of their general character. The body is

cylindrical and made in two halves, turned on a potter's wheel and united at the waist while the clay was still wet. The feet are close together and project but little from the body: the drapery is represented by incised lines. One, or in some cases both hands are held below the breast and

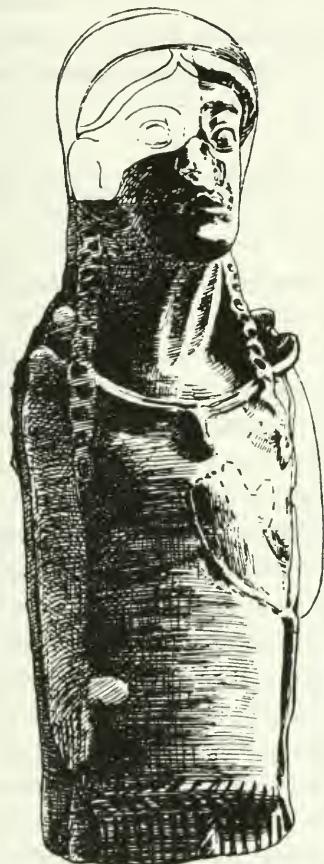


FIG. 5.—UPPER PART OF FEMALE FIGURE FROM PRAESOS. (1 : 4.)

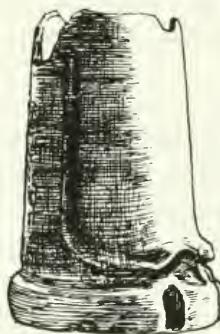


FIG. 6.—BASE OF A TERRA-COTTA FEMALE FIGURE FROM PRAESOS. (1 : 8.)



FIG. 7.—BASE OF A TERRA-COTTA FEMALE FIGURE FROM PRAESOS. (1 : 8.)

carried offerings; one fragment shows a hand holding a pomegranate. The figure here shown (Fig. 5) measures '44 m. in height, and with the lower half of the body probably measured  $2\frac{1}{2}$  to 3 feet. The hair is treated in separate tresses which fall over the back and shoulders. The wearing of jewellery is characteristic—necklaces with pendants, bracelets

and earrings, in one case '04 m. in diameter with a pattern resembling a flower with eight petals.

The modelling of the body makes little attempt to imitate nature, that of the face shows knowledge of the forms but is shallow and careless. The figures make no claim to be regarded as works of art, but they are interesting as showing the ordinary work of the local school. They find their closest parallel in the series of female votive figures from Larnaka in Cyprus.<sup>1</sup>

#### § 4.—THE FOUNTAIN AT VAVÉLLOI AND THE TRIAL PIT ON ACROPOLIS I.

These two sites can be classed together since the finds are almost identical, consisting of the same types of plaques in both cases and a few fragments in the round.

The immense richness of the site at Vavélloí may be inferred from the large number of plaques in the Museum at Candia, which must represent but a small fraction of the many hundreds which have been dug up by the peasants and mostly perished, or still remain to be unearthed.

Of these plaques Professor Halbherr<sup>2</sup> figures seventeen varieties, of all of which, except three, specimens were unearthed in 1900, when rather over thirty varieties were discovered. The plaques vary in size from about '05 to '2 m. in height. One of the most primitive representations, which occurs in several different types, is that of a nude 'Oriental Goddess,'<sup>3</sup> which is well distributed over the east part of Crete.

The most common type of all represents a draped male figure,<sup>4</sup> perhaps a priest, with long hair, carrying an offering ; of this there are at least fifty specimens at Candia, two of which were found by Mr. Hogarth near Epano-Zakro. Two types represent warriors armed with spears and shields, one of which is decorated with a ram's head<sup>5</sup> ; like the Mycenaean male figures they wear tight girdles, which contract the waist. Two other types show a female figure seated between two columns with a triglyph above ; her mourning posture suggests Demeter bewailing the loss of Persephone.

<sup>1</sup> See Mr. J. L. Myres in *J.H.S.* 1897, p. 166 ff.

<sup>2</sup> *American Journal of Archaeology*, loc. cit.

<sup>3</sup> Halbherr, *A.J.A.* vol. v. Pl. X.

<sup>4</sup> *Ibid.* Pl. XII. No. 1.

<sup>5</sup> *Ibid.* Pl. XII. No. 3, and p. 390, Fig. 19 (the whole of this figure can be restored from the finds of 1900).

Three different types represent a nude boyish figure,<sup>1</sup> the position of whose feet recalls the scheme of Polyclitus: they are of late, possibly Hellenistic date, and may represent the dedications of Ephebes. The most charming figure of all is that of a dancing maiden in a high head-dress and short chiton<sup>2</sup>; the background of bullrushes recalls the Hellenistic reliefs. Certainly of Hellenistic date are two large plaques, one of which represents a draped *κόρη* suggesting a Tanagra type, the other Aphrodite half draped, with Eros at her feet. One type representing a kneeling archer,<sup>3</sup> can be roughly dated to the end of the fifth century B.C., since the same representation with very similar treatment is found on the earliest coins of Praesos about 400 B.C.

It will thus be seen that the series covers a large space of time, some being quite archaic and others Hellenistic. The fact that some of the most primitive are also the most numerous seems to imply that they persisted by the side of more modern productions. They are mostly in a broken condition, and perhaps the deposit was formed of offerings, which, being of no value, were broken and buried as they became too numerous. One remarkable feature of the series, as of terra-cottas from Praesos generally, is the absence of paint such as is commonly found on the terracottas of the Greek mainland and Asia Minor.

Of terra-cottas in the round no whole specimens were discovered on the Vavélloï site. The fragments include a few pieces of drapery of late style and a number of heads, also mostly late, the most interesting of which represents a bearded satyr. But figures in the round seem not to have been popular at Praesos, though evidently manufactured on the spot, as is shown by the discovery of a fragment of a mould.

In conclusion, I wish to thank Mr. Bosanquet, not only for allowing me to publish his finds, but also for advice and help, and Dr. Joseph Hazzidakis, the Ephor-general of Antiquities in Crete, for affording me every facility in the Museum at Candia.

E. S. FORSTER.

<sup>1</sup> *Ibid.* p. 392, Fig. 24.

<sup>2</sup> *Ibid.* Pl. XII. No. 5.

<sup>3</sup> *Ibid.* p. 392, Fig. 25.

## EXCAVATIONS AT PETRAS.

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ON a low spur of the hills that shut in the Sitia valley on the east, immediately overlooking the sea and separated from the port of Sitia by nearly a mile of sand-bar, stands the unimportant hamlet of Petras, originally Venetian, afterwards 'Turkish' or Moslem-Cretan, and for the most part ruined and deserted since 1896. Mr. Marshall came here in January, 1901, and collected sherds which left no doubt about the early date of the remains, treated by previous travellers as Hellenic. Lying on a deep bay and commanding as it does the easiest route into the Eteo-cretan highlands, it seemed likely that Petras might furnish useful clues, if not to the indigenous culture of the district, at any rate to the foreign influences that were at work here during the Bronze Age. Later, when two months of work at Praesos had produced very little Kamáres pottery of the familiar mid-Cretan types and no Mycenaean, it seemed doubly desirable to examine this, the nearest definitely Mycenaean site, and to ascertain what had been the local varieties of early pottery. Accordingly I made trials at Petras on June 17th and 18th, 1901, employing ten men the first day and sixteen the second.

With the exception of the ground occupied by cottages at the northern tip of the spur, the whole hill is cultivated. It was covered with wild undergrowth until fifteen years ago, when two Moslem brothers bought and reclaimed it, setting a large force of labourers to demolish the ancient masonry and to form the hill-sides into cultivation-terraces. The field-walls contain many roughly-dressed 'megalithic' blocks of limestone, and a certain amount of ashlar, making it evident that there were extensive buildings here. My informants said that the destruction had been systematic and complete, and trial-pits in the fields showed them to be

right. In such a case the best chance is to try the roads. Cuttings into the roadway skirting the west side of the village (B. on Fig. 1) revealed a well-built wall 17 m. long and 1·50 m. high running north and south; a return-wall projected at either end, and two others between them divided

100 0 100 200 Mètres.

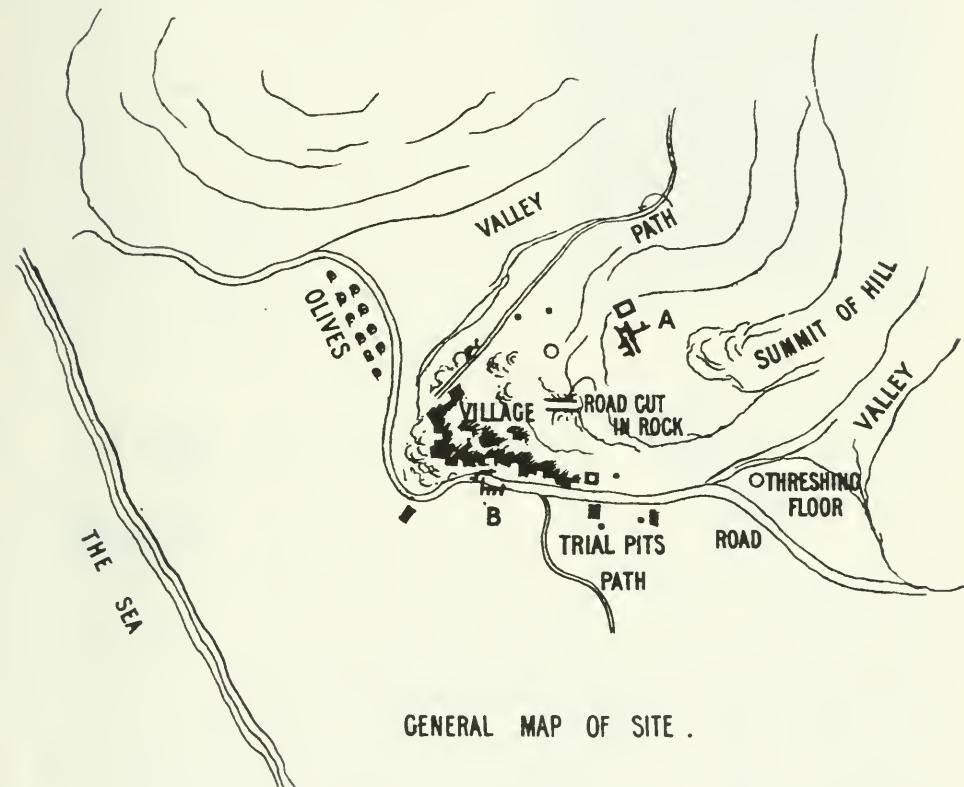


FIG. 1.—PETRAS NEAR SITIA.

(N.B.—The sea is to the North of the village.)

the long front into three nearly equal compartments. We had the complete length of the building, but could not ascertain its width, all the cross-walls being broken off where they emerged from the protection afforded by the terrace carrying the road. The wall at the north was 1·40 m. thick, that at the south 1·10, the two partition-walls .80 m. The building was

dated by two large *pithoi* in the middle compartment and by the two vases shown in Figures 2 and 3, which lay close by at a higher level, as if



FIG. 2.—‘KAMÁRES’ JAR FROM PETRAS ( $\frac{1}{2}$ ).

find vases of this form (with the mouth open) among its ancestors.<sup>1</sup> The present specimen, however, belongs to a stage of Mycenaean art at which the *pseudamphora* was already well established.

At the time of the excavation there was a tendency to treat all ‘Kamáres’ ware as anterior to Mycenaean; later discoveries have shown that the native technique of white decoration on dark slip was still to a certain extent in vogue along with the Mycenaean method, when the blow fell which caused the ruin and desertion of these settlements on the coast. Vases shaped like those in Figures 2 and 3 were found in House B. at Palaikastro; the Mycenaean village at Petras belonged to the same age, and we can hardly doubt that it met the same fate, as Zakro, Palaikastro, and Gournia.



FIG. 3.—SPHERICAL VASE FROM PETRAS ( $\frac{1}{2}$ ).

<sup>1</sup> Most of the spherical *askoi* of this type are small vases. For larger ones the division of the handle by an elevated false neck served to give the handles a stronger hold on the vase, which would be heavy when filled. The *pseudamphorae* found in the Cretan coast-settlements are for the most part large and coarse storage-vessels; the small examples of fine ware become common in the succeeding period. Both forms, *pseudamphora* and *askos*, are simply bottles in which oil and other liquid commodities could be sealed up; in many specimens the funnel-like shape of the spout would make it easy to insert a stopper and cover it with the maker’s seal.

I also examined a plateau north of the actual summit of the hill (A on Fig. 1), where tradition said that a 'church' had been discovered in the work of demolition. Only the footings of walls remained, but these seemed to be those of a large mansion, dated by a few fragments of Mycenaean pottery. There was the beginning of a staircase, 1·70 m. wide with three steps *in situ*, and a finely dressed door-sill of black basalt-like stone unknown in the district, measuring 1·55 m. by 1·70 by 1·28. At the northern limit of this plateau there projects a tower constructed in megalithic fashion of irregular limestone blocks; its front is 11·40 m., its side 8 m., its walls 1 m. thick. There is a similar tower, projecting and standing nearly 3 m. high, below the building B. In both cases the rock within is considerably higher than without and is so denuded that excavation within the towers is useless. Between sites A and B there is a pathway mounting the hill which for a few yards is cut through the rock.

On the second day we dug into the slopes outside the ancient settlement on the North-east and came upon a large rubbish-heap containing masses of Kamáres pottery, chiefly cups in all degrees of coarseness and delicacy, a few scraps of transitional Mycenaean ware, numerous terra-cotta cubes with four parallel perforations (loom-weights), pieces of a smooth hemispherical steatite bowl, and fragments of three-legged cooking pots. Closely mixed with the heap were quantities of stone-chippings and other refuse suggestive of house-building or house repairs. A possible explanation is that the place had been sacked and then re-occupied. The inhabitants swept out and rebuilt their homes, and threw the resultant rubbish outside the town.

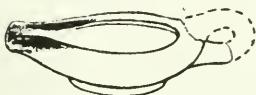


FIG. 4.—MYCENAEAN LAMP  
FROM PETRAS (1).

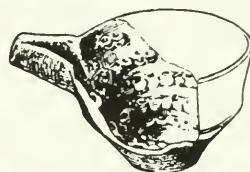


FIG. 5.—VASE WITH INTERNAL CELLS  
FROM PETRAS (1).

Among the thousands of fragments there were a few whole cups, and three lamps (Fig. 4) of a form known from several Mycenaean sites in East Crete.

The most curious vessel is the spouted cup shown in Fig. 5, which is provided internally with five rows of tiny cells; I have no idea of their use. Trial pits elsewhere yielded an amygdaloid bead of reddish-yellow sard, obsidian flakes, a clay 'label' 9 cm. in diameter with three parallel strokes incised near the perforation at the top, a plain red sherd incised with a character like the letter N, and part of a large earthenware vase-support with triangular openings, painted in the style of the coarse pseudamphora figured on p. 313 below. The only part of the site where undisturbed deposits are likely to exist is the ground East of the building B, at present covered by the village; but the results would hardly justify the expense involved in the removal of the houses.

R. C. BOSANQUET.

## EXCAVATIONS AT PALAIKASTRO. I.

(PLATES VIII. 2, XV.-XX.)

### § 1.—THE SITE.

BRIEF reports on the work done by the British School at Palaikastro in April and May 1902 have appeared in the *Journal of Hellenic Studies* (1902, p. 384) and in *Man* (1902, No. 119). In the present paper I propose to describe the discoveries made in the cemeteries and in the houses, reserving for a future occasion the discussion of certain problems on which fuller light may be thrown by the excavations of 1903, to be made with larger resources and over an extended area, thanks to a liberal grant from the Cretan Fund and to the unfailing goodwill of Prince George's Government. The past campaign was of a preliminary nature and cost less than £150, including the somewhat serious item of transport, but excluding that of drawings and photographs. That we were able to continue our exploration of Eteocretan territory in this direction is due in large measure to the courtesy of Dr. Dörpfeld, who had expressed a wish to excavate here but withdrew his claim in favour of the British School on learning that the interest of the site was mainly Mycenaean, and of Mr. Hogarth, who had realised its importance and applied for digging rights during his fruitful campaign at Zakro. To Mr. C. H. Comyn, architect of the School, who took a full share in all the work of excavation, besides preparing the plans and most of the drawings illustrating this report, I owe a debt of no ordinary gratitude.

In a direct line the site lies thirteen miles north-east of Praesos and eight north of Zakro. The intervening country is for the most part a

<sup>1</sup> The spelling Palaikastro (**Παλαικάστρο**) expresses the local pronunciation and is convenient as distinguishing this site from many others called **Παλαιόκάστρο**.

high limestone tableland, a region of desolate *kärsten* descending on the east to the rich inland basin of Upper Zakro and on the north to the maritime plain of Palaikastro. There the central plateau ends in steep escarpments, while the high outer barrier through which the rivers of Zakro and Karoumes have cut precipitous gorges to the sea gives way first to low gravel cliffs and then to sandy beach. Such a beach, stretching in a two-mile curve interrupted only by a steep acropolis-like headland, olive-groves clothing the plain up to the foot-hills three miles away, and a broad belt

THE EASTERN HALF OF CRETE.

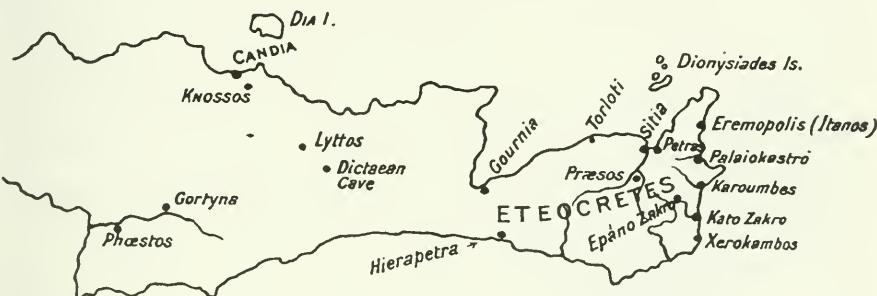


FIG. 1.—THE EASTERN HALF OF CRETE.

of cornland between the olives and the sea, are signs which anywhere in the Levant, even without the names of Palaikastro and Kastri, would compel one to look for traces of an ancient city. A comparison of the sketch-map (PLATE XV.) and the photograph<sup>1</sup> (PLATE XVI.) will show how these natural features are combined in the South-east quarter of the plain, where ancient remains lie thickly clustered over a tract called Roussolakkos (roughly 500 by 300 metres, marked by hatching on the map) or scattered in ones and twos over a far larger area.<sup>2</sup> Geographers have suggested the

<sup>1</sup> Taken from a point midway between Karoumes and Πάτημα on the southern margin of Plate XV.

<sup>2</sup> For the geography of the Eteocretan region as a whole see Mr. Hogarth's paper on Zakro, *B.S.A.* vii. pp. 121 sqq.: for the physical formation of the Palaikastro plain, Spratt, *Travels and Researches*, i. 205 sqq., and Raulin, *Description physique de la Crète*, Paris 1869, p. 170. The antiquities of the region were described by Professor Halbherr in four papers contributed to the *Antiquary*, 1891, pp. 201, 241, and 1892, pp. 152, 214. Here as at Praesos I had the use, thanks to Mr. Evans' kindness, of his unpublished notes of journeys in the district.

names of Itanos (really at Eremopolis five miles to the North), of Dragmos (probably in the valley of the Upper Zakro), and even of Grammion, which there is no reason to place in this district at all. These speculations are all beside the mark ; the remains at Roussolakkos, which a passing traveller who noticed the ashlar blocks in the field walls might easily set down as Hellenic, are those of a Mycenaean town, and the plain has furnished only the scantiest indications of any later settlement. Few as they are, these indications are worth noting.

(1) Some terra-cotta cornices with archaic reliefs representing a chariot, now in the Candia Museum, were found twenty years ago on the east slope of Roussolakkos and might seem to indicate the position of a temple. We dug on the spot indicated by local tradition, and verified it by finding a fragment with the same cable border, but met with no remains of the building to which they belonged. A more thorough search will be made next season. The well-known arbitration-award of the Magnesians in the dispute between Itanos and Hierapetra, preserved in two inscriptions found respectively at Toplu Monastery near Itanos and at Magnesia on the Maeander, states that the Temple of Dictaeon Zeus lay near the tract of disputed territory called *Heleia*.<sup>1</sup> The marshy character of part of the Palaikastro plain would justify the name, but the tenor of other passages in the inscription suggests that the Temple and its outbuildings covered a considerable area, and it is difficult to believe that they can have vanished so completely ; for all the remains visible on that, as on other parts of the Roussolakkos site, bear the impress of the Mycenaean age. The temple is rather to be sought inland.

(2) The 'fragment of a sitting figure of colossal size and very white Parian marble,' seen by Spratt on the beach below Kastri, but broken up (as I learned locally) soon after his visit by a notorious treasure-hunting priest from Karydhi, may perhaps be associated with the remains of a similar figure on the island of Kouphonisi off the south-east coast of Crete. Kouphonisi is the *Leuke* of the Praesos-Hierapetra arbitration-award, as Palaikastro may be the *Heleia*. The inscription shows that in the first half of the second century before our era detachments from the Ptolemaic garrison at Itanos were posted at the disputed points, which have this in common (if Palaikastro be *Heleia*) that both offer safe anchorage for small craft on a coast where such shelter is rare. It was to the interest of a

<sup>1</sup> Dittenberger, *Sylloge*, 929.

maritime state like Itanos, and of her Egyptian patrons whose fleet policed these waters, to secure harbours which in the right hands would further her coasting-trade, but in the wrong hands might become the lurking-places of pirates.

(3) South of Kastri, below the modern warehouse from which the produce of the plain is shipped, are remains of a small Hellenic building, from which we obtained *imbrex*-tiles bearing the stamp ΚΝΩΣ (ιων)—a tile from Palaikastro bearing the name in full was already known.

With these exceptions there is no evidence that the plain was occupied in classical times. On the hill of Kastri we uncovered the remains of poor houses containing painted pottery of a later type than any found in the houses of Roussolakkos; thus the bowl represented in Fig. 2 is of a form commoner on the mainland and in the latest *stratum* at Phylakopi than in Crete, and its ornamentation is more geometric than Mycenaean. We may perhaps infer that at the close of the Minoan age, when the unwalled towns and villages on the coast were forsaken and the population withdrew to the hills, a handful of the old inhabitants lingered on the safer hill-top. However this may be, there is no reason to suppose that Kastri was ever an Hellenic acropolis. What seems clear is that Palaikastro, like many other cities on the coast, was abandoned when Crete lost her command of the sea.

It may be doubted whether the neighbouring seas and islands were ever free from pirates from that day until the beginning of the nineteenth century, since when the population has been flowing back to the plain. The author of one of the MS. surveys of Crete made for the Venetian Government, writing in 1631, describes Palaikastro as uninhabited and gives the reason—it was frequented by Corsairs. Local traditions confirm this account; to this day the majority of the houses in the plain belong to migratory families whose regular domicile is in one of the mountain-villages, and the permanent inhabitants number in Cretan phrase only forty 'doors' out of 130.

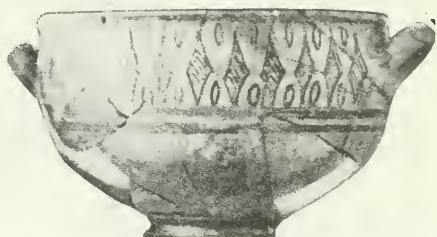


FIG. 2.—BOWL FROM KASTRI.

## § 2.—THE EARLIEST CEMETERIES.

(PLATE XVII. 1-3.)

The earliest graves were found on a gravel ridge (*τοῦ Γαλέτη ή κεφάλα*) which runs from South to North through the area of the Mycenaean town, then bends to the East to form the southern horn of the harbour. A find which is still the wonder of the province was made here some fifteen years ago by the owner of the ground ; in digging the western slope of the ridge he was said to have discovered a corpse dressed in a golden corselet and with a golden sword at its side. The man himself gave a more credible version ; the corselet resolved itself into gold leaf, sewn no doubt to a garment, the golden sword into one of bronze, two spans long, with four gold studs at the hilt. The gold was melted down

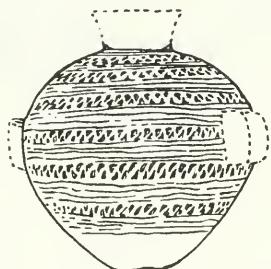


FIG. 3.—HAND-MADE VASE,  
WITH IMPRESSED TRIANGLES.

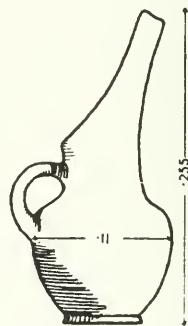


FIG. 4.—BEAKED  
JUG.

and furnished a cross and a pair of ear-rings for his wife. This was probably a Mycenaean tomb. Excavation on the spot indicated produced a little gold-leaf but no other interment of like character ; but it was time well spent, for it led us to a line of pre-Mycenaean funeral deposits on the same ridge, containing pottery akin to that of the cave-tombs at Zakro. The oldest type, represented by several incomplete examples (Fig. 3), is an oval or globular hand-made jar of grey-green clay with tubular suspension-handles and a decoration of impressed triangles, or of parallel incised lines. Then come a variety of beaked jugs, some of which bear marks of knife-trimming, and stone vessels of green schist, the finest of

which, a lamp with flat spout and pierced ledge handle and decoration of parallel incisions grouped in triangles over the whole exterior, is shown in Plate XVII, Figs. 1 and 3 (top centre). A larger bowl, and a convex lid on which were carved returning spirals of the early Aegean type, were only represented by fragments. At the foot of the western slope there occurred some early wheel-made jugs, one of which (Fig. 4) unites a ring-foot with an

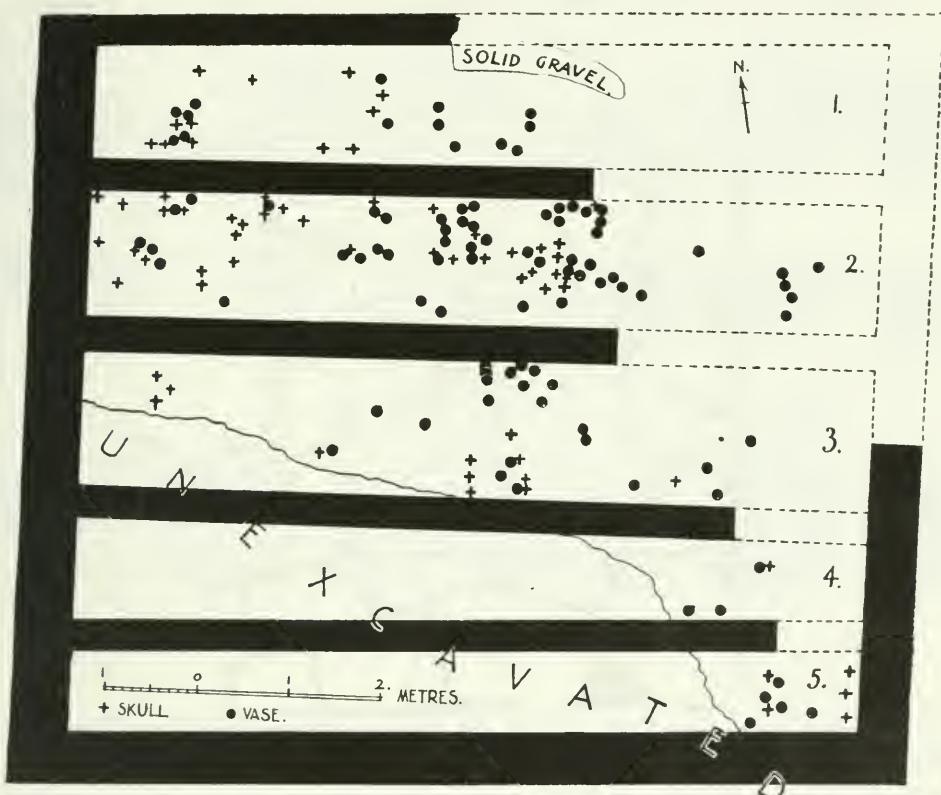


FIG. 5.—BONE-ENCLOSURE OF THE KAMÁRES PERIOD.

exceptionally elongated beak. Its clay is reddish, covered with a brown slip. The other objects found here were numerous obsidian razor-blades and a miniature bronze single-axe ('05 m. long, '03 broad). The ridge had been subdivided by low dry-stone walls, but most of them, being built without foundation on a steep slope, had slipped downwards and crushed

and confused the deposits between them. No skeleton was found extended at length and no skull fit for preservation ; the bones were heaped together and much decomposed.

A better preserved cemetery, characterised by the same parallel subdivisions, was excavated on the same ridge further to the south, and here it was possible to observe, and to some extent preserve, the human remains as well as the pottery (Fig. 5). It is an oblong, nearly rectangular enclosure (9·70 m. by 8·25) built of rough limestone blocks and divided

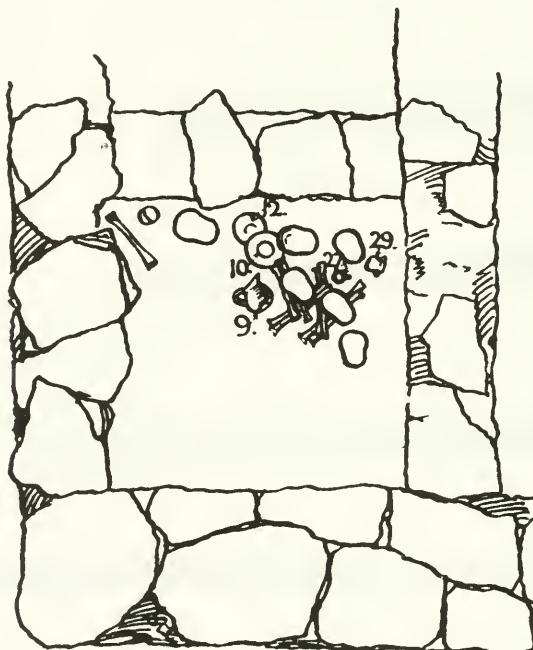


FIG. 6.—DETAIL OF KAMÁRES BONE-ENCLOSURE.

into five narrow compartments by low walls of the same material. The north-east corner is obliterated, the remainder has been but little disturbed. Fig. 6 illustrates the way in which the skulls and principal bones of bodies skeletonised by previous interment elsewhere were deposited in this final resting-place. With them were vases, over 140 in all, a selection of which are shown in Fig. 7. The lower row contains five types of jug, a miniature amphora, and a basket-like vessel with two handles on the

rim ; the two upper rows represent a variety of drinking-cups. Cups were in a great majority. Small jugs were one in twenty of the whole find ; there were five little square-mouthed amphorae and as many plates (from '11 m. to '28 in diameter). In only one instance were bones found in a vase.<sup>1</sup> The vases had not contained offerings when buried here, for in many cases the cups and plates were turned bottom up and the jugs on their sides ; but it is possible that they had contained food or drink

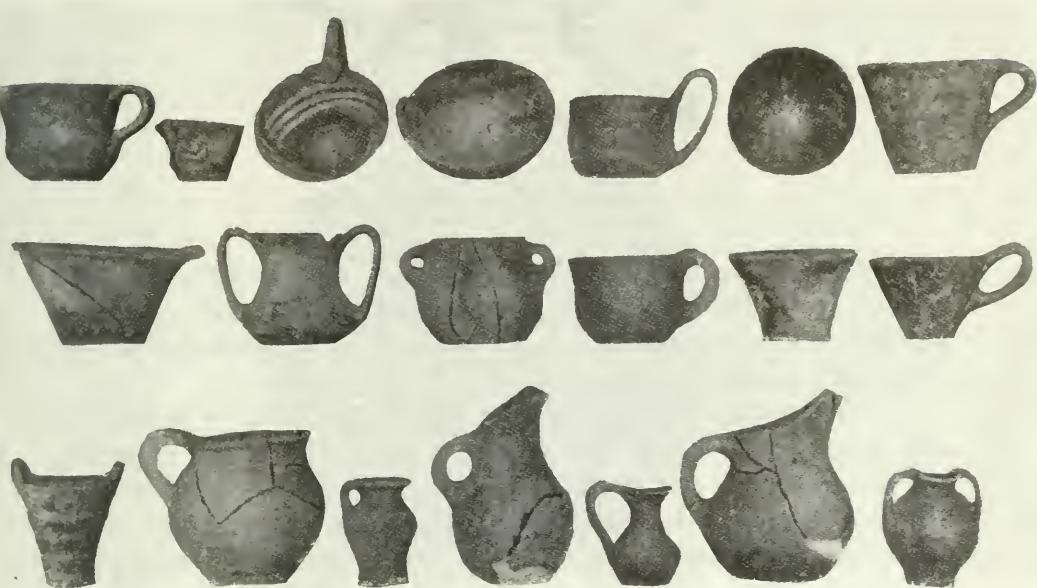


FIG. 7.—TYPES OF POTTERY FROM THE BONE-ENCLOSURE.

(Scale about 1 : 5).

placed beside the corpse at the original interment. In several cases the handle of a cup was broken, as might easily happen if the bones and accompanying vessels were transferred together from the grave to the bone-pits.

In some cases skulls and vases were so tightly packed that it was impossible to decide which had been deposited together. Fig. 8 shows a group of three jugs, a small jar with contracted mouth, and a round dish,

<sup>1</sup> No. 40. Tall jar of grey ill-fired clay, with small pouring-lip and two handles just below the rim. Ht. '20 m. ; diam. at base, '10 ; at mouth, '17. Laid on its side, containing bones of an infant.

which were associated in one of the latest interments made here. The jug with long spout is of a common Kamáres form, but the trefoil mouth of the tall jugs is characteristic of the developed Mycenaean period at Palaikastro.

With this doubtful exception the pottery is pre-Mycenaean in

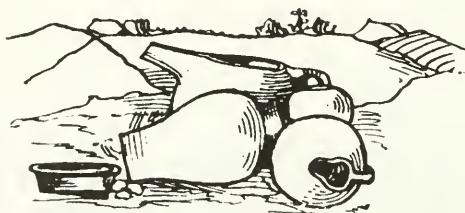


FIG. 8.—GROUP OF FIVE VASES, AS FOUND.

character. While much of it is a cheap and commonplace local ware covered with a brown, black, or reddish wash, there are over a score of examples of true Kamáres technique, with vivid polychrome decoration of white and orange-red on a black slip.

As the examples show (Figs. 9-12), the ornament is geometrical and as yet unaffected by the distinctive naturalism of the succeeding period. The forms are relatively more advanced than the decoration; Fig. 9 and the two-handled cup in the middle of the upper row of Fig. 7 are skilful reproductions from metal prototypes. Another cup is adorned with the figure of a white dove, modelled in the round and supported on a slender stem so as to appear to hover over it; and a still more ambitious piece of plastic work, a bowl found outside this enclosure on the opposite slope of the ridge, has the whole of its interior covered with miniature oxen, reclining rank behind rank to the number of nearly 200 with the figure of a herdsman upright in the centre. The cup represented on Plate XVII, Fig. 2, belongs to a different class; I know of no close parallel for the charmingly free scroll-pattern on its exterior; the nearest analogies are to be found at Phylakopi. It is painted in dark sepia, with a white border to the sepia band, over a buff ground sprinkled with sepia spots.

The patience of the few picked "knife-men" who lay or crouched in the trenches cutting through the compost of bones and pottery inch by

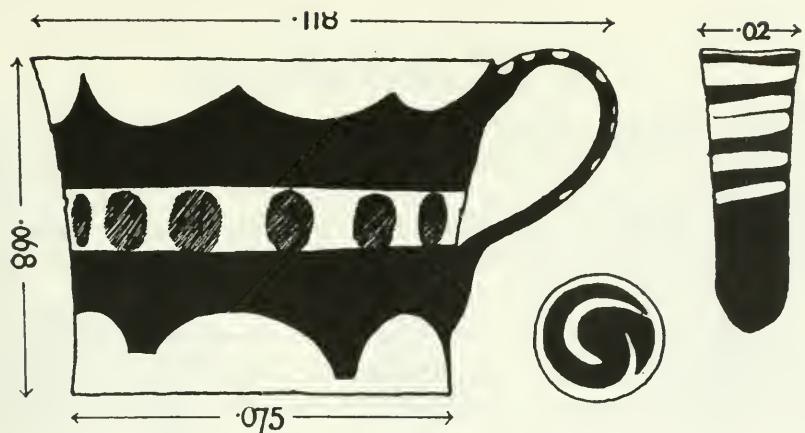


FIG. 9.

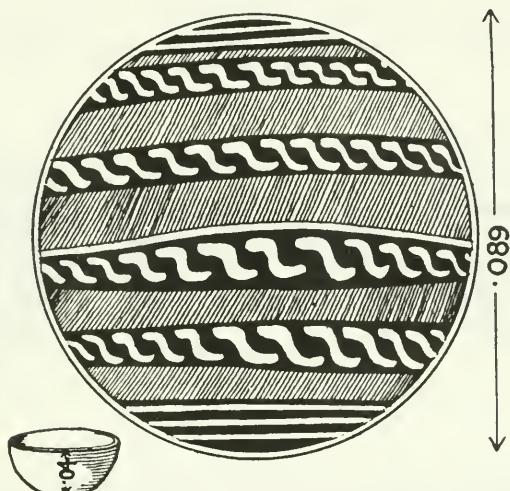


FIG. 10.



FIG. 11.

FIG. 12.

KALĀRE VASES FROM THE BONE ENCLOSURE.

inch was sometimes rewarded with unexpected treasures such as the exquisite little vases shown on Plate XVII, Fig. 3. Of those in the upper row the first from the left is of a soft grey and pink sandstone, the second of limestone, the third is the lamp of green schist already described, the fourth is a delicately carved crater of alabaster, the fifth of steatite. In the lower row, the first and third are flat-spouted steatite lamps,<sup>1</sup> the second a plain steatite bowl. These vessels seem to have been valuable; the alabaster bowl was protected by an inverted plate; and a clay lamp and several clay bowls shaped and coloured in imitation of stone vessels are a further proof of the extent to which they were prized. Later in the Mycenaean period we know that steatite vessels became relatively common.

The *Triton*-shell occurs as frequently in early deposits in Crete as it

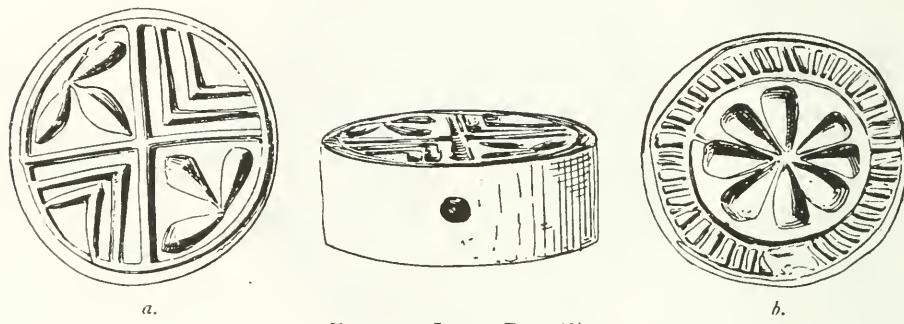


FIG. 13.—IVORY DISC (§).

does in Mycenaean ornament—for the so-called *murex* on the later pottery is only a degradation of the *Triton*; so it was not surprising to find one here. It lay immediately under a skull together with the polychrome bowl represented in Fig. 10 above, two common cups, and a coarse tripod cooking-pot.

Another interesting little group consisted of a tiny bronze cutter, a common yellow cup, and an ivory disc with engravings on both faces (Fig. 13).

The quartered design of *a* is related to patterns on Kamáres vases from this district, that of *b* to some of the early steatite prism-seals published by Mr. Evans in 'Further Discoveries of Cretan and Aegean Script'

<sup>1</sup> One of them was found outside the S.E. angle of the enclosure, near a skeleton stretched at full length, the only instance of normal inhumation found in this excavation.

(*J.H.S.* xvii. 1897), in particular to Pl. x. 13 *b*, while the border may be compared with that of Pl. ix. 1 *c*.

From another part of the enclosure came a black steatite prism-seal of the transitional class which Mr. Evans has described as in many respects

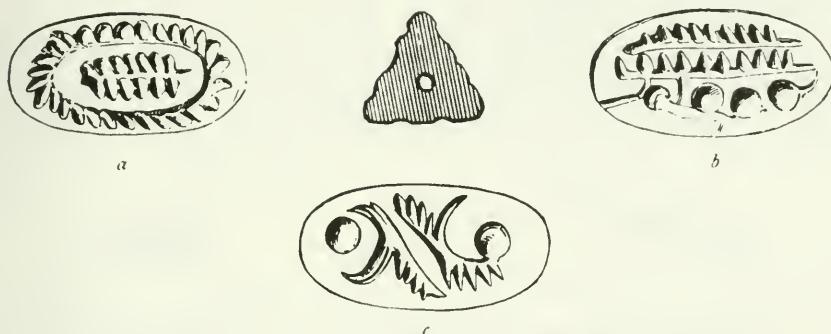


FIG. 14.—BLACK STEATITE PRISM (†).

fitting on to those just described (*I.c.* p. 334). The scrolls on our Fig. 14 *c* may be compared with those on a similar steatite seal in the Copenhagen collection (*I.c.* p. 335, Fig. 4); they are clearly of Egyptian origin.

### § 3.—THE PAINTED LARNAX, AND SOME OTHER LARNAX-BURIALS.

(PLATES XVIII. AND XIX.)

THE custom, wide-spread in Minoan Crete,<sup>1</sup> of depositing the remains of the dead in an earthenware sarcophagus, has been illustrated by several discoveries at Palaikastro. In the summer of 1901, during one of the exploring journeys undertaken by Mr. J. H. Marshall from our head quarters at Praesos, he was so lucky as to unearth two of these ossuaries in the north bank of the river. One of them, which is decorated with a painted design of exceptional interest, is reproduced on Plates XVIII and XIX from designs by Mr. Gilliéron.

Its material is a well-baked dark-red clay, coarse-grained and containing particles of quartz; over this is laid a good creamy slip; the colour of the paint varies from red to black.

<sup>1</sup> See Orsi, *Urne funebri cretesi* in *Monumenti Antichi* I. (1890), and Perrot and Chipiez, *La Grèce primitive*, pp. 455, 456.

It has the form of a chest, 1.22 m. long, .44 wide, and .67 high; the height of the gable-shaped lid is .31 m., giving a total height of about one metre. Like other *larnakes* of this form it is raised on four feet, and has drain-holes in the bottom for the escape of moisture. It had four vertical handles on each side (some now missing) and a horizontal one at each end; it is remarkable that the lid is entirely without handles, provision being made for lifting and replacing it by an unusual development of the ridge-pole. Most of the known examples (*e.g.* Fig. 15 below) have handles on the lid corresponding to those of the body, and it now appears

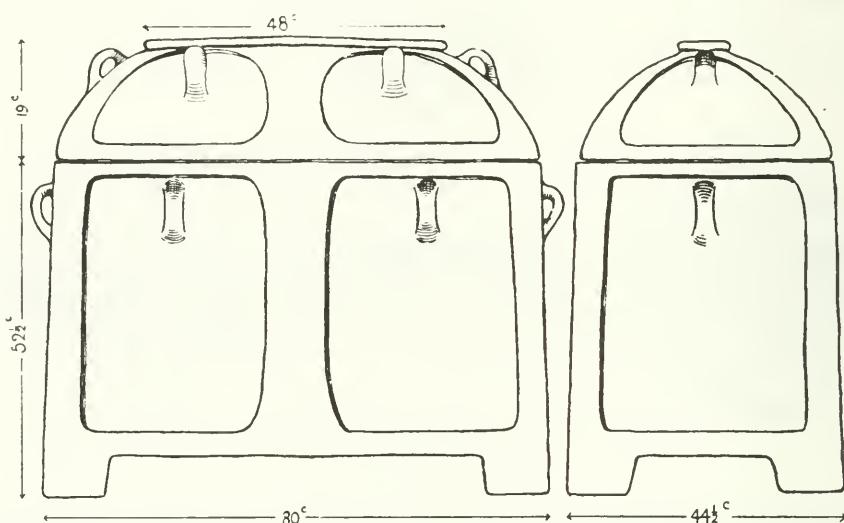


FIG. 15.—LARNAX WITH SUNK PANELS, FROM PALAIKASTRO.

that they served not only for lifting the cover but for tying it on; above each of the outermost handles on the long sides of the Palaikastro *larnax* two holes have been bored near the lower edge of the lid,<sup>1</sup> evidently to admit strings by which lid and body could be laced together for security in transport.<sup>2</sup> The ridge-pole has an irregular polygonal section, varying from hexagonal to octagonal. At first sight this prominent feature along with the general shape of the box and its cover might suggest that the

<sup>1</sup> They are indicated on Plate XVIII.

<sup>2</sup> It has been suggested that these *larnakes* were carried by means of poles thrust through the vertical side-handles. I doubt if they would stand the strain; their attachment to the clay of the sides is quite superficial. No doubt they were usually made within easy reach of the tomb.

whole was meant to imitate a house with a gable-roof. This, however, is not the case; the construction of the body reproduces the framing and panels of a wooden chest. On the less elaborate examples previously in the Candia Museum a reminiscence of wood-construction survives only in a perpendicular line of paint corresponding to the edge of the panel; but in this example and in another which I excavated at the same spot (Fig. 15) the actual framing of the wooden chest with its six sunk panels is faithfully repeated. Mr. Evans has argued from the Nilotic decoration of certain *larnakes* that the chests which they imitated had been imported from Egypt. Their frequent occurrence in North-eastern Crete, on the highway of navigation between Knossos and Egypt, bears out this very probable supposition.<sup>1</sup>

The decoration emphasises the structural divisions, the frame-posts being covered by bands of spirals, serpentine lines, or dark and light triangles (on one end), with a band of quatrefoils on the raised band dividing the side-panels. These panels are .57 m. high and .47 wide. Each contains a single figure, the vacant spaces being filled according to a curious convention of Mycenaean design by groups of wave-lines attached to the border. Panel *a* (Plate XVIII) is a very remarkable representation of a slender column, provided with a base and moulded capital and supporting a pair of 'sacred horns' and a double-axe, springing from between two flowers. The design is a variation of the familiar and beautiful scheme of a flower on an upright stem placed between two which droop to right and left. The draughtsman has substituted a column for the stalk, and the group of horns and axe for the flower, continuing the analogy consciously or unconsciously in the axe-like form of the stamen-tips at either side. The discovery of this monument followed close on the publication of Mr. Evans' paper on *Mycenaean Tree and Pillar Cult*, and furnished a striking confirmation of his views regarding the Horns and the Double-Axe. We have other evidence of the significance of the double axe at Palaikastro. Mr. Xanthoudides recently published the designs engraved on two stone matrices which, as I learned upon the spot, were discovered at Palaikastro in a field west of 'Επάνω Μετόχι.<sup>2</sup> Among the

<sup>1</sup> Many have been discovered by the peasants at Palaikastro; see Spratt, *Travels in Crete*, i. p. 210. One is built in near a well to serve as a wash-tub, another filled with soil and used as a huge flower-pot. All the crosses on the map (Plate XV), west of those at the foot of Kastri, mark spots where they have been found. Near Turloti I saw one in use as the recipient of a wine-press.

<sup>2</sup> 'Εφ. 'Αρχ. 1890, πτυ. 3, 4.

figures which it was possible to manufacture with the help of these moulds are—a woman holding a double-axe uplifted in either hand: a woman in the same attitude holding what appear to be flowers: a pair of horns: two very ornate double-axes: and an openwork disc with radiate margin recalling the stars on panels *c* and *d*, and the disc that is sometimes associated with the horn emblem.

Palaikastro has also furnished a parallel for the stepped pedestal immediately under the double-axe of the larnax, in a stepped plinth of steatite ('115 m. square at base, '09 high) which I obtained from a peasant there and placed in the Candia Museum; in the centre of its upper surface there is a round drilled socket '04 m. deep and nearly '02 m. in diameter, and two holes for horizontal cross-bolts have been bored through from opposite faces of the upper step.

The remaining panels represent respectively a winged gryphon, a fish, and a bird. The upper part of *b* is divided off by a straight line supporting two horn-emblems; the adjoining border is filled with conventional 'rock-work,' the space being too small for the usual wave-lines; a star and a flower appear in the field. The drawing of the gryphon, represented standing with spread wings and uplifted tail, is far from successful. The fish (? dolphin) on *c* (Plate XIX) is represented upside down, according to our conventions; in the field are two stars and a rosette. The bird in *d* has wings and tail treated in the same fashion as the wings of the gryphon. The ornamentation of the lid repeats the star and other elements which appear on the body; that of the ends includes scale-pattern, chess-board, and a pair of horns with a bud springing from between them.

Mr. J. H. Marshall, to whose promptitude the preservation of this important monument is due, finding himself unable to undertake the publication of it owing to the pressure of his work in India, has sent me particulars of the circumstances in which he discovered it and its fellow. In the following note, A is the painted *larnax* now in the Candia Museum, B an inferior example which was much ruined and has not been put together.

'The corner of B was projecting from the bank of the river about a mile inland. It had been laid bare by the storm which swept over Eastern Crete a little time previously. At the back of this was A; both were surrounded by walls of unhewn stones roughly set together and the floor was also paved with rough stones. Behind A were two Mycenaean vases.<sup>1</sup> The two *larnakes* were side by side within an inch of each other. The first exposed to view (B) was made of coarse smooth clay of more tenacious texture than A; on this was a thin red slip and dark sepia paint burnt to black; it seemed to have been overfired. The lid was flat. The

<sup>1</sup> These will be published in an article by Mr. R. M. Dawkins on the Palaikastro pottery.

sides had no perpendicular bands, but the base and corners projected 1·8 cm. from the walls. It was much destroyed; whatever ornament there had originally been was of the plainest description. Its whole appearance was of the coarsest and most indistinctive kind, but its contents seem to proclaim it as belonging with A to the Mycenaean period. There were fragments of a bronze cutter, of a dagger and

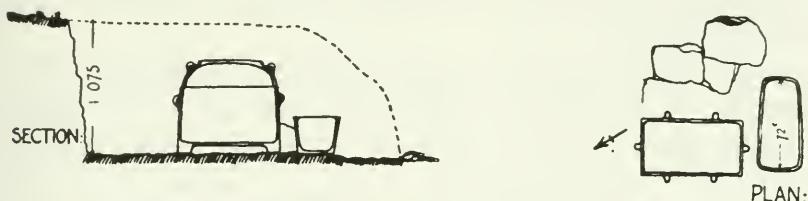


FIG. 16.—POSITION OF LARNAKES IN RIVER-BANK.

spearhead. In A, there were a knife and spear-heads and remnants of a human skull, but no other bones.'

—A cross on the map (Plate XV) marks the scene of Mr. Marshall's discovery, on the north bank of the river beside the hamlet of 'Αγίαν Τριάδα. It may have been a family burial-place attached to the megalithic house a hundred yards further

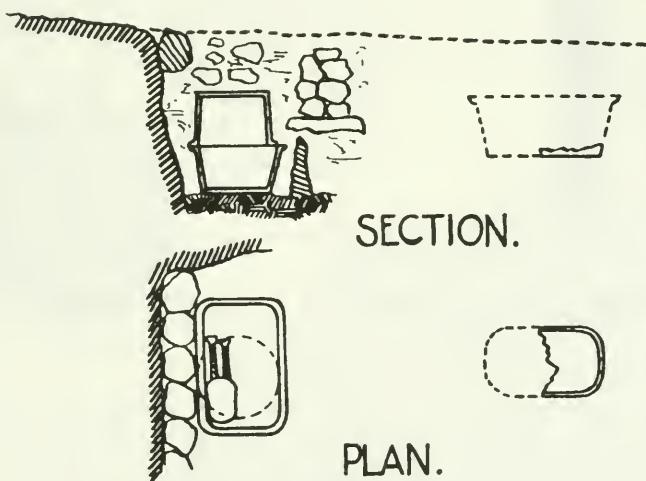


FIG. 17.—LARNAX-BURIAL ON THE CLIFF.

(Scale about 1:30).

up stream, which yielded Mycenaean pottery and a lamp like the one found at Petras (p. 285, Fig. 4). The winter floods are gradually eating away the bank, and the peasants have seen several *larnakes* exposed and broken up. Mr. Comyn and I excavated round about and discovered two others, crushed by the stream but in their original positions (Fig. 16). One is the small chest with sunk panels already

mentioned (Fig. 15 above), a few vertical stripes of dark red being all that remained of the painted design. The junction of lid and body had been puddled over with fine clay so as to seal it hermetically. The bones inside were almost completely decomposed. A small *pseudamphora* with careless black paint on a red slip stood on the ground at the north end, and a broken bronze knife-blade was found to the East. South of this chest was a bath-shaped larnax ; it contained only the bones of a skeletonised corpse, the arm- and leg-bones piled in the middle, the skull laid at the narrower east end.

Another interment of this kind was discovered on the cliff south-east of House A. My attention was called to it by some pieces of limestone set in line along what looked like a cut edge of the soft conglomerate which forms the cliff. The deposit, shown in Fig. 17, consisted of a small bath (·50 m. by ·25 m. internally) with a smaller tub (circular base ·32 in diameter), inverted over it to form a cover. When the cover was lifted two fragments of a skull were seen lying on a surface of fine sandy earth ; below this filling were a skull and bones, not of a child as I had expected,

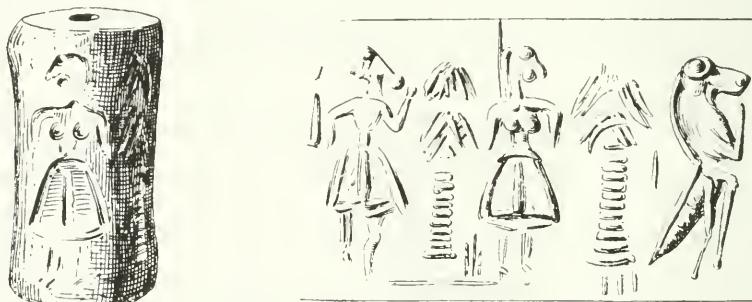


FIG. 18.—ENGRAVED CYLINDER FROM LARNAX-BURIAL.

but of an adult ; the two fragments laid on the surface had evidently been overlooked when the bones were transferred from the grave to the ossuary. Below the skull were fragments of a bronze ring.

A yard away to the west, lying on the floor of a crushed and broken bath-*larnax*, was found an engraved Mycenaean cylinder of soft black stone, the design of which is developed in Fig. 18. The stone is so much worn that it is hard to say whether the two female figures are meant for zoocephalous companions of the lion-headed demon, or ordinary women. Although the design is Mycenaean, the form is a very rare one in Crete ; its presence here must be due to Oriental influences. In like manner a cornelian bead with scarabaeoid markings found in House B points to the importation of Egyptian forms.

## § 4.—THE BEEHIVE TOMB.

ABOUT 300 yards east of Angathia, where the road to Roussolakkos runs for some distance in the track of a small torrent-bed, the winter's floods had eaten into the roadway and exposed a 'bath-tub' *larnax*. This had been broken up before our arrival. It seemed worth while to dig round about, the more so as house-walls are visible a few paces away, and earthenware coffins are sometimes found in groups near the homesteads. This led to the discovery, on May 7th, not of another *larnax*, but of a chamber-tomb of a type previously unknown to the native diggers. Twenty yards west of the original clue, and just north of the road, a trial pit struck the clean-cut wall of a *dromos* 7·50 m. long descending at a steep angle to the south and widening from 1·15 m. at the start to 1·45 at the lower end, where the entrance to the chamber was blocked by a wall of undressed limestone standing six courses high. Beyond was a doorway 1·80 wide, cut in the dark red clay subsoil, its lintel and the upper part of its jambs destroyed. The dimensions of the *dromos* had prepared us to find



FIG. 19.—PSEUDAMPHORA FROM UPPER DEPOSIT IN BEE-HIVE TOMB. (1:3).

the chamber a large one, but it proved disproportionately small, and irregular in shape, its longest diameter being only 2·30 m. The roof had fallen in, but otherwise the tomb had not been disturbed or plundered. We were removing the loose top-soil and had not yet reached the fallen masses of roof-earth, when there came into view a broken pseudamphora (Fig. 19) of an unusual squat shape 1·065 high, 1·15 in diameter, with a Triton-shell painted on the shoulder (red paint on fine yellow slip). It rested on a heap of bones, a little to the left of the centre of the tomb as seen from the door, 1·70 below the surface of the ground. The skull lay 1·30

beyond the heap of bones, with the neck-opening upwards. Owing to the flow of water overhead the earth was very damp, and the skull and bones too rotten for preservation. Near the skull was a much corroded silver ring, beside the bones part of a bone pin. The grouping of the bones suggested that the corpse had been skeletonised by previous interment. The skull may have been placed on the bone-heap, as was often done in the 'Kamáres' cemetery, and have rolled away during the filling in of the tomb.

Below the bones was a stratum over a metre thick of clay in large clods—the fallen roof, and below that a number of crushed vases and implements, arranged as shown in the plan (Fig. 20).

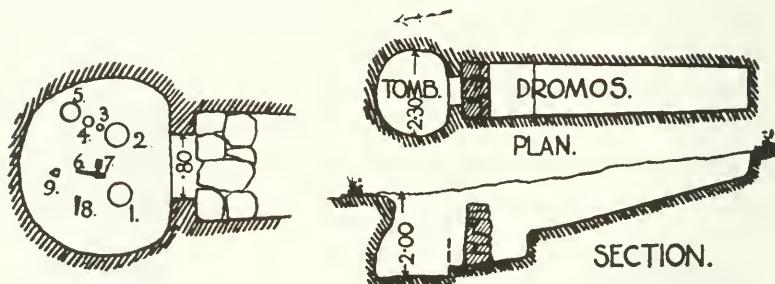


FIG. 20.—BEEHIVE-TOMB: PLAN, SECTION, AND DETAIL-PLAN SHOWING ARRANGEMENT OF LOWER DEPOSIT.

1. Pseudamphora. Ht. '31. Black bands, yellow slip, red clay. On shoulder chevrons in fan-grouping.
2. Pseudamphora. Ht. '33. Clay like that of 1, with redder slip and better glaze, band of snake ornament, three bands of red-brown paint above and below. On shoulder two very conventional birds, bodies filled with chevrons, face to face, holding worms in their beaks.
3. Small cup, unbroken.
4. Bowl with contracted foot and pouring-lip. Ht. '08. Diam. at mouth '15, at base '045 Careless brown-red paint round lip within and without, descending in scollops.
5. Pseudamphora. Ht. '35. Black bands, yellow slip, yellow clay, surface perished. (Form nearly = F. and L. *Myk. Vasen*, xiv. 88).
6. Dagger. Length '33. Three studs and traces of bone plates in sunk places of hilt.
7. Razor. Length '13, breadth '05, thickness of back '009. Much perished and incapable of preservation (cf. F. and L. *Taf. D.* 8).
8. Knife-blade. Length '22. Two studs for handle.
9. Fragments of thin bone with engraved lines. Perhaps a comb.

The whole of the earth was sifted, but excepting the comb just mentioned, not a particle of bone was discovered below the stratum of

clods. It follows that the funeral offerings had been deposited, but not the body, when the roof collapsed, and it may be assumed that the bones laid on top of the fallen mass are those of the person for whom the tomb was prepared. In any case a comparison of the vase found above with those found below shows that the interval cannot have been a long one.

The attempt to introduce this foreign type of tomb at Palaikastro seems to have been a failure. The designer had made the initial blunder of running his *dromos* down the side of the hill, and we may conjecture that signs of weakness in the roof prevented him from excavating a chamber proportionate in size and finish to the broad and symmetrical entrance. No doubt it was failures like this which led to the substitution of stone-lined *tholoi* for chambers scooped out of the subsoil. At Palaikastro we know only of this one experiment; the other Mycenaean graves there are ordinary pit-graves containing *larnakes*. The evidence suggests that tholos-burial was introduced in eastern Crete towards the close of the Minoan Age, and that even when they adopted the foreign form of tomb the Eteocretans retained their primitive practice of skeletonising the body and reinterring the bones.

As to the date of the tomb, the degenerate decoration of the pottery shows it to belong to that later period in which the centre of gravity of the Aegean world shifted from Crete to the mainland. On the small pseudamphora the Triton-shell is seen halfway in the course of modification which transformed it into the figure called *Purpurschnecke* by Furtwängler and Loeschke.

We may learn something too from the bronzes. The same implements, sword, knife, and razor, larger but similar in form, were found in one of the richer graves at Ialysos, Tomb IV. (F. L. Myk. *Vas.* Taf. D. Figs. 6, 8, 11, and pp. 7, 8) which has several points of contact with that of Menidi, together with two pear-shaped jars (Taf. III. Figs. 19, 20), of a form and ornament common to Ialysos and to Tell-el-Amarna. A sword and razor of the same form as those found at Ialysos occurred in one of a series of late Mycenaean chamber-tombs at Canea, and are preserved in the Museum there. The Palaikastro tomb, lying three-quarters of a mile inland, may have been constructed by settlers who occupied the plain a generation or more after the abandonment of the town on the sea-shore.

### § 5.—THE HOUSES ON THE CLIFF. HOUSE A.

Of all the ruins on this site the most conspicuous are those of a large house, built of huge undressed limestone blocks, on the promontory south of the crescent-shaped port. Its former extent is attested by the number of blocks strewn at the foot of the gravel-cliff, which, like all the adjoining coast-line, is being eaten away by the sea, and even now the size and strength of its walls arrest the eye and suggest that they, and not the insignificant houses on the summit of Kastri, gave to the harbour and plain the name of Palaikastro. We tested this building by excavating a single room near the apex of the promontory ; it contained large storage-vessels,<sup>1</sup> flakes of obsidian, steatite sherds, and a scrap of wall-revetment of gypsum—the last an interesting proof of Knossian influence, for gypsum is not readily obtained at Palaikastro, the nearest deposits being near Roukaka. It will be excavated more completely in the coming season.

Remains of smaller houses can be traced along the cliff for 300 metres south of this point. One of them, House *A* (Fig. 21) was selected for excavation in the hope that it might prove to be contemporary with the Kamáres cemetery on the ridge to the West ; the finding of some well-preserved Kamáres pots<sup>2</sup> in a room close by on the brink of the cliff gave colour to this expectation. In the event it proved to belong to the period of the exodus, with remains of an earlier house underlying it. The plan shows the want of doorways characteristic of basement-rooms in houses of the Minoan period in Crete and Melos. Built or monolithic troughs, used perhaps for bruising olives before pressing, were found at both levels ; the quadrant-shaped stone platform in the Room north of 7 may be the sub-structure of an oil-press.

The house lies 25 paces from the cliff on a knoll sloping to N. and W. The walls have a bottom-course of undressed limestone blocks with large corner-stones, and upper courses of rubble, the construction being very poor in comparison with that of House *B*. No brick-earth was found. There had been an earlier house of different plan on the same site ; the two levels are well defined in 7, where the clay floor of the later house was 40 m. above the paved floor of the earlier one. Parallel to the

<sup>1</sup> Jar (ht. '34 m., mouth-diameter '24) with two handles and spout on shoulder ; tall, rather slender *pseudamphora* (ht. '41) ; two *pithoi* (ht. '75, diam. of mouth '38).

<sup>2</sup> A thin tumbler, black with white bands, and a spouted ‘hole-mouth’ jar with a sprinkled rock-work pattern on reddish ground.

W. wall and inside it are remains of the original wall of the room and beside it a built trough 33 square, both below the later floor ; at the same level were found the

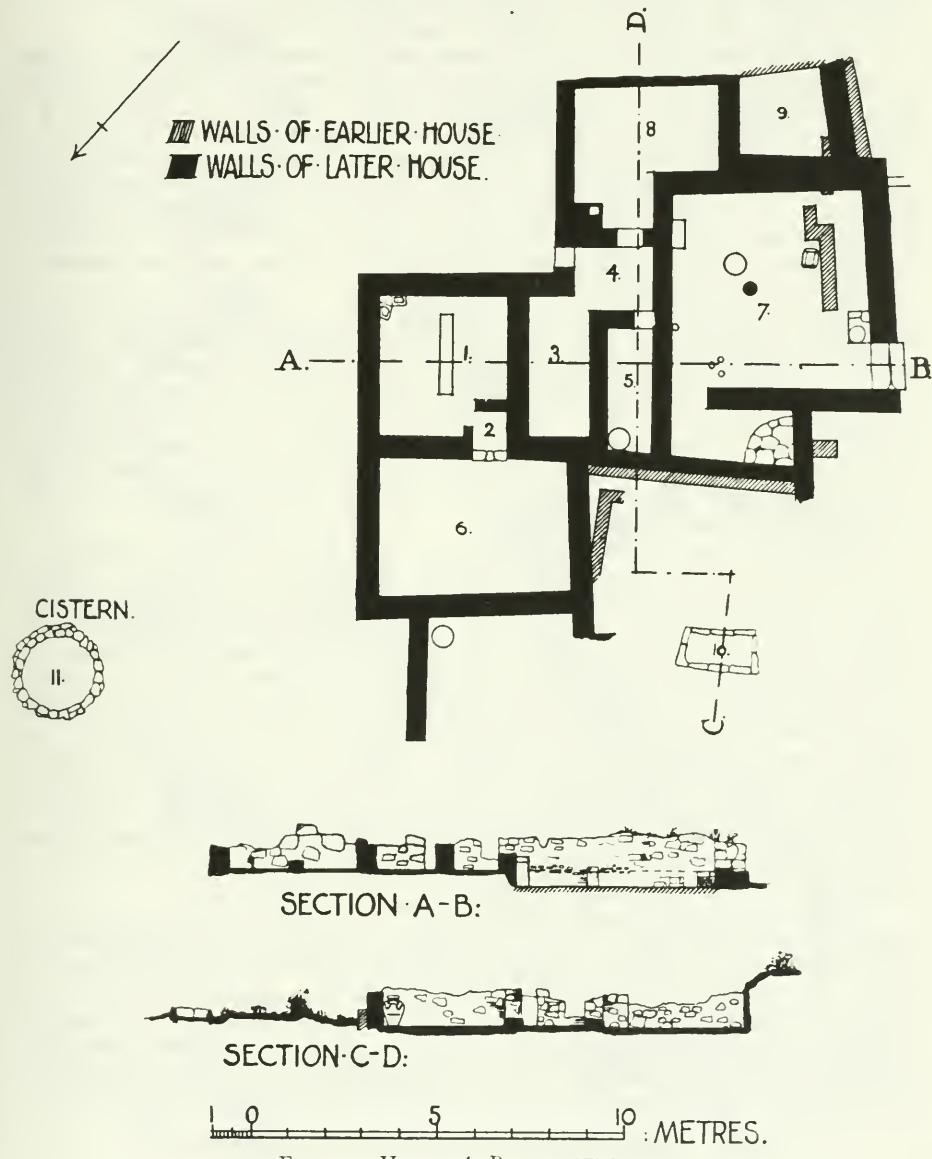


FIG. 21.—HOUSE A, PALAIKASTRO.

fragments of a tall jug of transitional style, decorated with red paint on a warm yellow slip, the red surfaces being stippled over with dots and other small ornaments

in white. Built into walls of the later house, and therefore at least as old as the period of its construction, were pieces of a large jar painted in a local imitation of the "Palace-style" with a design of lilies and fish. Other remains of the older house may be seen outside to the W. and S.; its plan could not be recovered.

The principal room of the later house was 7, entered by a raised threshold formed of two flags (1 m. by 1·08); its roof was supported by a column, the limestone base of which is 3·2 in diameter and 1·8 thick. Against the N.E. wall is a large ashlar block, perhaps used as a bench. Near the column were remains of a pithos like one found whole in 5. The other vases found here were two jars (3·4 and 1·4 m. high respectively) and a small jug, of types abundant in the magazines of House B. In the S. angle of 7 a door leads into a side-room containing a quadrant-shaped platform, paved and furnished with a raised margin; it might be explained as a hearth, but the stones show no marks of fire, and I am inclined to regard it as part of an oil-press.

Rooms 1, 2, and 6 have no entrance from without. In the middle of 1 is a roughly-built bench, in the S.E. angle two stone troughs of coarse grit. Several saddle-querns and stone rubbers were found here, a perforated "fire-box" and much rustic pottery. 3, 4, and 6 yielded nothing of interest. 5, a small magazine, contains a well-preserved pithos (ht. 7·4, diam. over rim, 3·4) with turn-over lip, ring on neck, four vertical handles on shoulder, and below them a triple undulating band in relief; broken jars of the same type were found in 7 in the courtyard. In the walls enclosing this magazine and in its floor were found the fragments of the fish-and-lily vase mentioned above.

Room 8 presents a curious structural feature in the solid block of masonry to the left of the entrance; in the angle of this we discovered a small cist, a cube of 2·7 to 3·0 m., neatly formed with thin slabs of slate, containing a Triton shell which had in all probability been concealed there as a charm. This room yielded a great deal of pottery; unlike the rooms of House B. it was in extraordinary confusion and seemed to have been ransacked at the time when the town was abandoned. Shapes 1, 2, 3, 5, 7, and 9 of Fig. 20 were represented here; there was also a black-slip jar of the Petras type (p. 284 Fig. 2), and a two-edged bronze knife-blade, with three studs in line at the butt (length 1·4, greatest width 0·4), and a lump of obsidian. The same confusion prevailed in the adjoining room 9. Besides shattered pottery it yielded a bronze awl, a hone 0·7 long with suspension-hole, and a miniature limestone bowl 0·4 high of a type that may have been in use for a long period, since it occurred in the Kamáres cemeteries on the ridge<sup>1</sup> and at Patema, and with late Mycenaean ware on the summit of Kastri.

Further north the ground falls away and the walls are lost; there is a formed surface of masons' chippings, probably the floor of a courtyard, and in the middle of it an oblong trough (2·13 m. × 1·10) of slabs roughly fitted together. N.E. from the house, 8 m. away, is a circular cistern built of limestone puddled with clay, 3·70 deep, 2 m. in diameter at the mouth, somewhat less at the bottom. It contained a considerable variety of Mycenaean pottery and a sprinkling of Kamáres fragments. The rarity of the later is the more surprising because the room already mentioned in which several whole Kamáres vases were found lies only 7 m. further north.

<sup>1</sup> See Plate XVII., Fig. 3, the second from the left in the upper row.

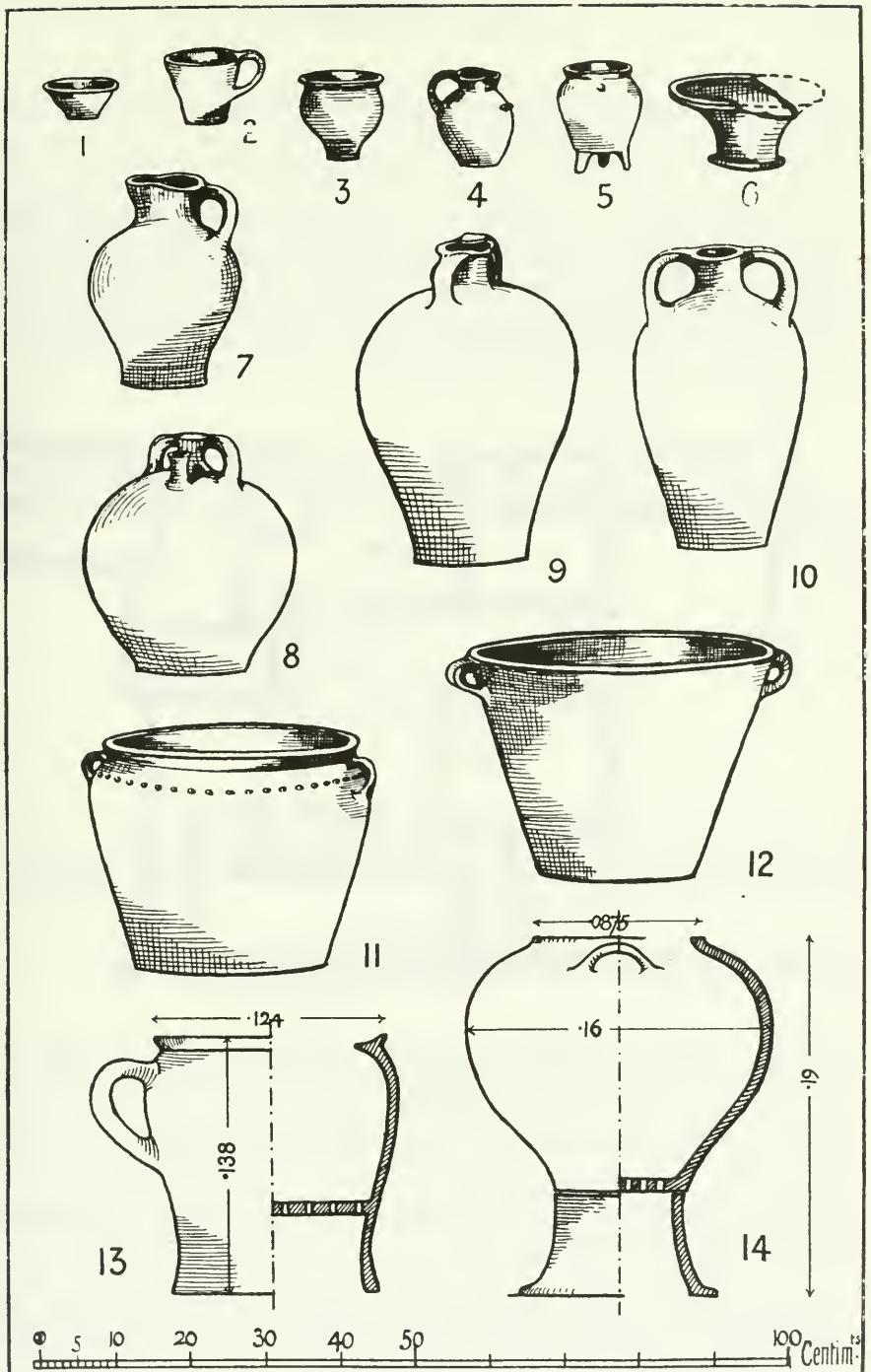


FIG. 22.—FORMS OF POTTERY FOUND IN HOUSES *A* AND *B*, PALAIKASTRO.

§ 6.—THE QUARTER WEST OF THE RIDGE.—HOUSE B.

(PLATES VIII. 2, XVII. 4 5, AND XX.)

This block may be divided into three parts (see plan Pl. XX.), (a) a large house (rooms 1—22) with megalithic outer walls, shown in solid black on the large plan and separately in Fig. 21, (b) a courtyard to the South-east, (c) an annexe extending to the north and north-west (23—36) which may or may not have formed part of the same whole. So far as

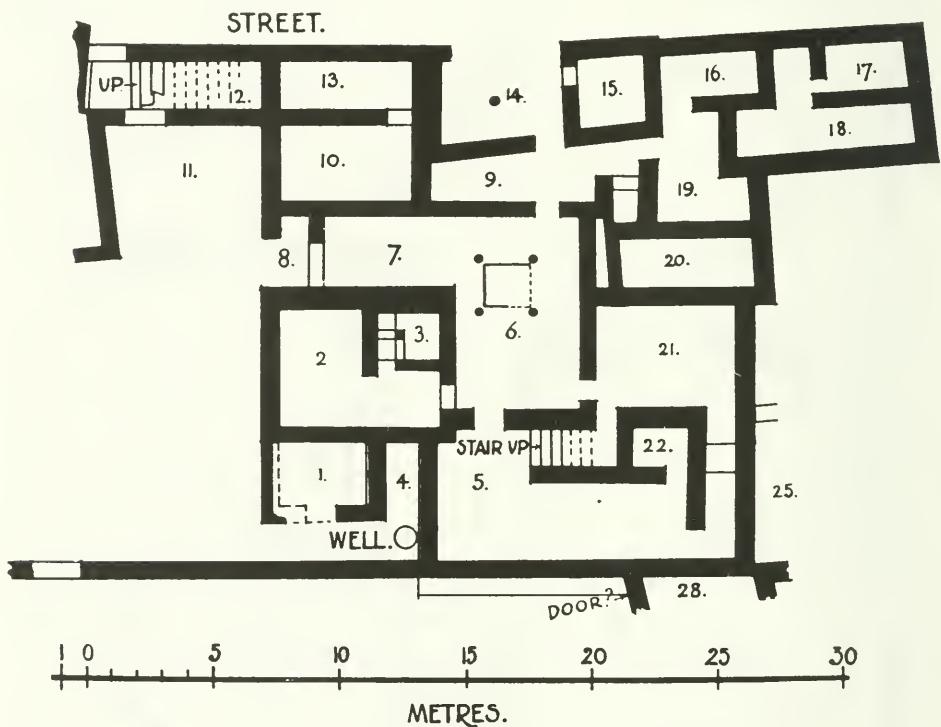


FIG. 23.—HOUSE B. PLAN OF THE MAIN HOUSE.

(b) and (c) are concerned, the present report is provisional, the excavation of them being unfinished.

The entrance to the court was from the direction of the harbour, an earlier entrance from the street through room 12 having been blocked by a staircase inserted there when the upper storey was added. In the northern angle of the

court is a well, '80 m. in diameter at the mouth, which we explored to a depth of 4'50 m., finding both Kamáres and Mycenaean pottery. In the blind passage 4 there was a mass of fragments of the same Mycenaean types and sometimes forming part of the same vases as those found in the upper part of the well; this recess probably contained a wooden stair up which water could be carried to the bath-room 3 (see section A—B, Fig. 22).

Room 1, opening only on the court, is destroyed to foundation-level on the east; it had a stamped clay floor, and may have been a wash-house. Passing round to the porch 8, we find on the left a recess meant to hold a wooden bench; the porch of House C on the other side of the street (plan, opposite room 14), has a stone bench in the same position, and so has that of House G at Zakro (*B.S.A.* vii. p. 139). A threshold (1'90 x .55) of limestone from Cape Sidhero divides the

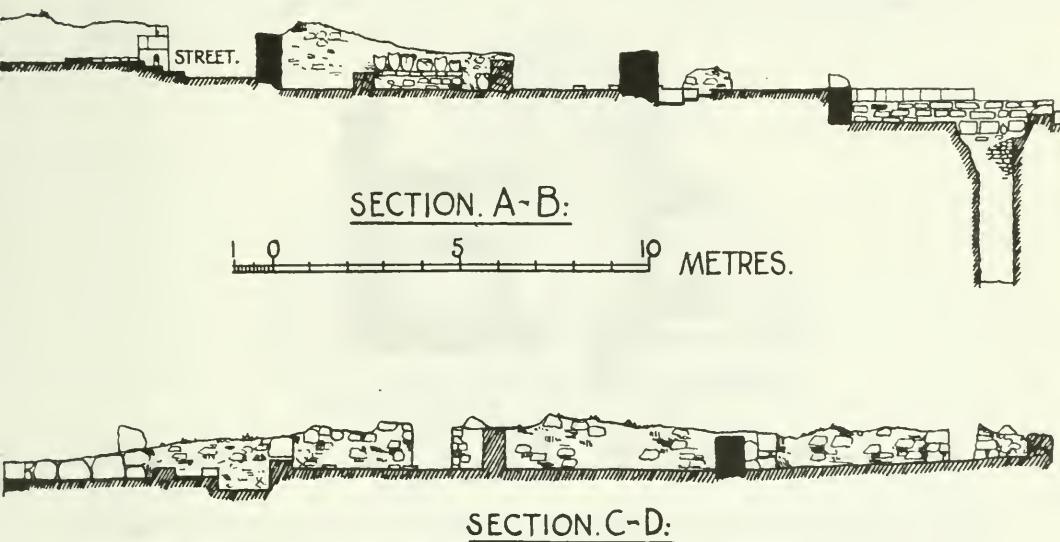


FIG. 24.—SECTIONS THROUGH HOUSE B.

porch from a vestibule 7 which leads into the chief room of the house, a Megaron of 7'60 m. x 5 m. (25 x 16½ ft.)—dimensions near to those of the smaller Megaron at Tiryns. Together 6 and 7 form an L-shaped whole, but the rectangle 6 is marked off by its pavement which consisted of a regular border of squared slabs, enclosing others fitted together in less regular fashion; within this again is a sunk area 1'70 m. square, framed in a border of rectangular slabs and lined with white cement, and at the four angles stand round column-bases varying from .32 m. to .36 in diameter. Plate VIII. Fig. 2, which is a view from the northern angle of the Megaron, looking nearly due south, makes a fuller description unnecessary. The four columns and the sunk area between them indicate the position of a square opening in the roof from which the Megaron, surrounded on all sides by other rooms, derived its light. In Mycenaean palaces on the mainland the hearth occupies the corresponding position, but we were unable to find any trace of a

hearth or of burned matter hereabouts and are therefore justified in interpreting this cemented space on the analogy of the cemented and sunk floors of the light-shafts at Knossos and Phaestos.

Five doorways give access from the *Megaron* to adjoining rooms—2 is a paved vestibule from which a narrow door on the right leads to the bath-room 3, shown in greater detail in Fig. 25. The vestibule was divided from the further part of 2 by one or more doorways; a single jamb is preserved on the left, not quite in line with the wall between 2 and 3 and thus leaving room for the step required by the difference of level between the two parts of 2; no trace of this step remains however, the North-Eastern part of 2, as of 1 and 6, having been denuded by the flow of a water-course draining the upper part of Roussolakkos. Below the floor-level of 2 is a curving strip of flag-paving, apparently a footpath connected with an older house; it is not, as might be supposed, a drain.

The plan of the bath-room should be compared with that of a very similar room in the palace of Knossos (*B.S.A.* vii. p. 62, Fig. 19); such resemblances

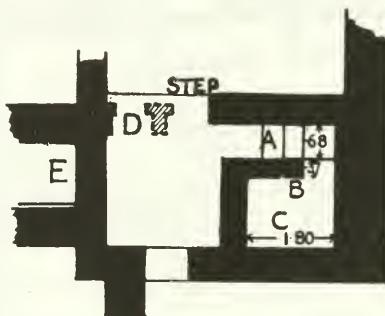


FIG. 25.—BATH-ROOM OF HOUSE B.

A Steps down. B Square shaft of column. C Basin. D Door-jamb. E Position of stair to well?

attest a more than superficial community of manners between Central and Eastern Crete as well as between the ruling class and the *bourgeoisie*.<sup>1</sup> The first considerable deposit of pottery was found here, consisting of the following vessels ranged in orderly fashion round the walls:

(a) Painted ware:

Three-handled pseudamphora, with degraded festoon-pattern (Fig. 26).

Jug with slightly raised beak and careless spray-pattern.

Yellowish cup of Kamáres type with white stripes.

(b) Plain red ware:

Amphora with elliptical mouth (Fig. 22, No. 9), ht. '45 m., mouth '07 x '11

Jug with trefoil mouth (Fig. 22, No. 7), ht. '43, greatest diameter '17.

Smaller jug of same shape (Fig. 22, No. 4).

<sup>1</sup> It may be suspected that a much ruined compartment in House B at Knossos (*B.S.A.* vi. Pl. V. facing p. 74) was a bath-room. It was not sunk, however, in this respect resembling the bath-room attached to the 'Queen's Megaron' of the adjoining Palace.

Bowl with spreading mouth (Fig. 22, No. 6), ht. 10, diam. at mouth 19, at base 8.

Three-handled pear-shaped jar, ht. 11.

Oblong cover for a dish, in the form of the head and back of an ox, ht. 12 length 31.

Three cylindrical jars, smaller versions of one from Petras (p. 284, Fig. 2), one containing five rounded pebbles rather bigger than a hen's egg, much blackened by fire—perhaps used for heating water.

Some miniature jugs, and common cups face downwards.

Another door leads from the Megaron into 5, originally a very large room but diminished by the construction of a staircase on the left of the door; four steps 70 wide remain *in situ*, and the rubble foundation of others, blocking a doorway by which 5 formerly communicated with 21. This doorway was then turned into



FIG. 26.—PSEUDAMPHORA FOUND IN THE BATH-ROOM (5).

a cupboard and was found full of cups and rustic ware. Nearly opposite the doorway of 5 two steps descend into a stone-paved compartment; here too an enormous number of common cups were discovered. The whole area of 5 was rich in pottery, and there were burnt matter and fragments of bone in the floor earth; it may have been a kitchen. Minor finds: three female idols of clay, one with left hand on breast, yellow clay with black paint; clay head of an ox: a strip of bone, carved on one side with a flat bead-ornament; miniature vases of grey-blue ware, including one with globular body and spout like one from Petras: and a number of Mycenaean sherds, among them some with marine designs.

The space 22 also was rich in rustic pottery; it is not yet completely excavated. North-west of it, and interrupting the roundabout passage from 5 to 21, is a deep pit which yielded a bronze ring and a little bronze dove. Room 21 yielded nothing noteworthy except some red wall-plaster, including pieces with

modelled convex surface. Space **20**, the doorless compartment beyond, seems to have become a cellar at the reconstruction; the narrow slit between it and the Megaron contained four dozen plain cups whole and many others broken, packed in rouleaux, taller cups and jugs, bones of sheep or goats, bits of obsidian and pumice, a tiny leaf-shaped lamp with rudimentary handle, and—near the bottom—a heap of stucco fragments which when pieced together form part of a pair of “Horns of Consecration,” derived probably from a domestic shrine.

The group of rooms **16—19** in the north-west corner require further study before their architectural history can be deciphered. The doorway connecting them with **9** was found blocked. I have kept the interesting groups **10—12—13** and **9—14—15** to the last.

**10** and **13** are magazines communicating with one another but without visible means of ingress from without. They were found stocked with several hundreds of vases, the larger ranged round the walls, the smaller in confused heaps as if fallen from shelves. Probably in the original condition of the house **12** was a vestibule between the street and the court, and there was no partition between **12** and **13**, which gave access to **10**. The built-up stone bench in **10** and remains of a

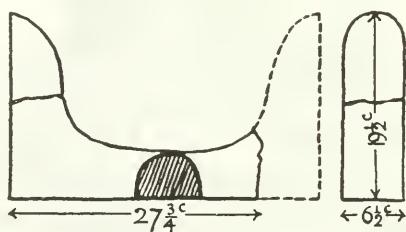


FIG. 27.—STUCCO HORMS.

(The shaded portion shows the section.)

painted plaster floor show that it was a room of importance; in some Turkish houses a reception-room interposed in the same way between the street and the court enables the master to receive visitors without disturbing the women at work in the court. When a second storey was added the openings from **12** into **11** and **13** were blocked, and in **12** was built a staircase 1'90 m. broad, of which three steps remain. It was probably at this time that **10** and **13** became storerooms. In the northern angle of **10** a space measuring 80 m. x 90 was found unoccupied, while elsewhere the vases formed a continuous series round the walls; it may mark the position of the entrance.<sup>1</sup> The pottery and other objects found in these two rooms require a detailed description and illustrations for which there is no space in the present article.

In **12** among the rubble forming the bed for the steps were two stone implements which may have been used by the ancient masons, a greenstone polisher of irregular form, 13 long, and a much-bruised limestone pounder, 25 m. long and 28 in girth.

Room **9** had a floor of stamped clay. The quantity of burned black matter found near the floor showed that the fire extended to this room, which was in use

<sup>1</sup> The wall has now (April, 1903) been tested at this point, and a doorway, not shown in the plan, has been found, connecting **10** and **7**.

as a lamp-store and may also have contained oil. Several large steatite lamps were found here, calcined by fire; one had a spreading foot 34 in diameter, another measured 28 with a column 11 in diameter. A square lamp or brazier without lips for the wicks, and a cylindrical jar with a spout, also occurred here.

In 14 there are remains of a good flag-pavement. The wall towards the street is so much destroyed that it is uncertain whether there was a door here or not. In the middle of the room is a column-base 37 m. in diameter. The need of a column here is explained by the discovery immediately over it of a larger column-base (51 in diameter, 21 thick) which must have stood in the room above. Marks on the smaller base seem to show that the column which it supported was only 26 in diameter; the weathering on the bases in the Megaron gives the same diameter for the columns which stood there.

The small room 15, entered from 14, had a plastered-floor, which however did not extend beyond the low wall (cross-hatched on plan) dividing the room in two; it is constructed over a rough pavement, and seems to have continued some way up the walls, forming a kind of shallow tank.

All the rooms hitherto described were full of the peculiar crisp red soil formed by the disintegration of the brick-built upper storey—on the south-west it lay 1·25 m. deep; the largest brick found measures 56 m. by 42 by 14, the normal size being about 40 m. by 30 by 10.<sup>1</sup> There can be no doubt that they were originally sun-dried bricks, and were superficially fired in the conflagration which destroyed the upper storey, the proof being that the mud with which they were bonded shows the effects of fire as much as the bricks themselves.

Mixed with the brick-earth were scraps of wall-plaster. Pieces painted with stripes .04 m. wide in two shades of soft blue came from 5. Among débris from the room above 10 which had slid down into the courtyard (11) were bits with four stripes, red, yellow, red and white, which may have adorned the outside of the wall; walls of sun-dried bricks would of course require the protection of plaster. We have to imagine the upper storeys of Mycenaean Palaikastro painted like Modern Greek churches with red and yellow stripes. The inner walls of the rooms above 10 and 13 were red. From 22 came traces of a pattern, apparently a spiral, in dark red and yellow: from 24, the small courtyard adjoining 19–21, plain surfaces of buff and slate-blue. Some of the upper rooms had floors paved with limestone flagging; quantities of it, in some cases reduced by the fire into a sort of slag, were found in 10, a little in 3 and in 5, none in 13. The room above 14 had been floored with kiln-baked earthenware tiles, .04 thick and at least .30 square.

The outer walls of the main house are built of irregular pick-dressed cubes of the local limestone; door sills, pavements and column-bases are formed of a highly stratified lime-stone quarried on Cape Sidhero, while the ashlar blocks are of a dark yellow freestone which is still worked at τὰ Σκαριά three miles to the south-east of the ancient town.

Rooms 23–36 were only partially cleared, and it is difficult therefore to discuss their relationship and construction. They do not seem to have had an upper storey, such brick-earth as they contain being derived from the adjacent house. Their covering is tight-packed brown earth with a large admixture of stones, suggesting that the walls were carried up in rubble masonry. 24 was a courtyard. The two doorways leading into it through 23, a late construction, had been walled up; the discovery of other blocked doorways may simplify the plan which is perplexing as it stands. The upper earth of 24 yielded a coarse green celt, a cornelian bead with

<sup>1</sup> See the table of brick-dimensions given by Dörpfeld in Schliemann's *Tiryns*, p. 260.

scarabaeoid markings, numerous small cups and some good Mycenaean ware; from a lower stratum came a steatite lamp, a bronze chisel, and a large unchipped lump of obsidian. In the angle of 23 were three jugs of the shape of Fig. 20, No. 7, containing well-preserved grain of three kinds, identified by Mr. Percy Newberry, who has been so kind as to examine samples, as wheat (*Triticum vulgare L.*), garden pea (*Pisum sativum L.*), and a smaller pea (*Pisum elatius M. B.*)<sup>1</sup>

No. 25 contains a rude stone trough and a big jug of common ware with three button-like projections grouped in a triangle below the spout. In 26 was found an orderly deposit of unbroken vases, consisting of two pithoi, a large pseudamphora (ht. '47), a smaller pear-shaped pseudamphora with degenerate "polyp" ornament (ht. '28, Plate xvii. Fig. 4.), a steatite bowl with calyx-carving (diam. 13), four large earthenware cups with horizontal handles, six smaller ones with vertical handles, and a remarkable flat-bottomed trough with open ends ('43 m. long, '31 broad, '10 high).

Rooms 28–31 may have formed a separate house. The first-named yielded interesting fragments of a bath decorated in Kamáres technique with white sprays on a black ground. In 29 there is evidence of an earlier and a later floor-level; the square pillar belongs to the later; its base is of stone but it was probably continued upwards in mud bricks—the only brick earth noted hereabouts lay close to the base. The three pithoi stand also on the higher floor. Opposite to the pillar at the foot of the east wall was a steatite bowl, '12 m. in diameter, with a moulded shoulder-pattern, a big pestle of grit, and the stem of a steatite lamp; also two large cylindrical terra-cotta weights, pierced through their axis (ht. '08 m.)

Nos. 32–36, so far as can be seen were cellars, No. 33 contained another small deposit, a bronze double axe and a group of three pithoi. The largest (ht. '74 m.), which was closed with a well-fitting steatite lid and was quite empty, has the flat turn-over lip, upright neck, and ring on the shoulder, which are characteristic of the large "Palace-style" jars, and a painted decoration of sprays, double axes and bold four leaved whorls.

R. C. BOSANQUET.

<sup>1</sup> For the original habitat of wheat see a paper by Mr. Newberry in Prof. Petrie's *Hawara, Biahmu and Arsinoe*, pp. 49–50. For the garden-pea, cultivated from time immemorial in Europe (Thophrastus, *Hist. Plant.* viii. 3 and 5), and in Egypt from the twelfth dynasty onwards, see his remarks in *Kahun, Gurob and Hawara*, p. 50. *Pisum elatius* is widely distributed in the Southern Mediterranean region.

#### CORRIGENDA.

P. 139, l. 5, for 'Otus' read 'Olüs.'

P. 139, l. 6, for 'Paūkos' read 'Paūkōs.'

P. 144, footnote 1, insert at end: *Tuλίσιοι* (p. 139), if the σ be single, should be added.

P. 154, footnote 3, for 'Skt. anahas' read 'Skt. andhas.'

P. 170, in place of footnote 2 substitute

'That the clay Bügelkanne existed in Egypt shortly after the time of Thothmes III we know from the occurrence at Tell el-Amarna of fragments of these vases.'

## ANNUAL MEETING OF SUBSCRIBERS.

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THE Annual Meeting of Subscribers to the BRITISH SCHOOL AT ATHENS was held in the rooms of the Society of Antiquaries, Burlington House, on October 14th, 1902, THOMAS HODGKIN, Esq., D.C.L., Litt.D., in the Chair. The following Report on the Session 1901-02 was read by the Hon. Secretary (Mr. WILLIAM LORING) on behalf of the Managing Committee :—

The work of the School has been carried on successfully under the Directorship of Mr. Bosanquet during the past Session. The first student to arrive in Athens was Miss Lorimer, Classical Tutor at Somerville College, Oxford, early in October. After some weeks spent in country travel, she settled in Athens, and remained there almost continuously till the beginning of April, devoting the principal part of her time to a study of the red-figured vases of the latter half of the 5th cent. in the Central Museum, and the remainder to attendance at lectures and visits to archaeological sites. Miss Lorimer accompanied the usual German tours in the Peloponnese, among the Islands, and to Troy, in the spring, and visited some of the principal Museums in Europe on her outward and homeward journeys. Another lady student, the Baroness E. Rosenörn-Lehn, (University College, London) in the course of a long season at the School (from the beginning of November to the end of June) applied herself mainly to numismatic studies; making a special investigation of the representations of birds in ancient art, especially on coins, and also adding to her collection of materials for an Index of coin types and symbols, which, if systematically carried out and judiciously arranged, should prove invaluable. The Baroness visited the Museums at Berlin and Munich on the way to Athens, and several museums and sites in Italy on her return. She proposes to continue her studies in Florence, Rome, and Athens, during the coming winter; spending a considerable time in Athens, and resuming her coin work there.

The men students were Mr. M. N. Tod, Scholar of St. John's College, Oxford ('Senior Student'), Mr. F. W. Hasluck, Scholar of King's College, Cambridge ('School Student'), Mr. C. Heaton Comyn, F.R.I.B.A. ('Architectural Student'),

Mr. A. P. Oppé (late Exhibitioner of New College, Oxford), and Mr. A. E. Henderson (Architect).

Subscribers who attended last year's Annual Meeting, may remember the hope expressed by the Committee, and more fully dwelt on by the Chairman, Sir Richard Jebb, that funds might some day be found for the endowment of one or more Students or Fellows, pursuing some advanced study or research, holding their stipends for a term of years, and being qualified to assist the Director so far as might be necessary in matters relating to the administration of the School, the conduct of excavations, and the publication of the 'Annual.' The Committee are happy to report, that the design thus sketched out has already been realised by the appointment of Mr. M. N. Tod, the 'Senior Student,' who heads the preceding list, on a fixed agreement for two years (1901-3), with a possibility of renewal. This new form of expenditure, however, seriously reduced the amount available for the work in Crete which will be referred to later. Mr. Tod's special line of study being Epigraphy, he spent much time in the Epigraphic Museum at Athens, under the general direction of Dr. Wilhelm, collating and where necessary preparing for publication a number of difficult 4th cent. inscriptions, which (it is hoped) will shortly appear in the 'Journal of Hellenic Studies.' He also devoted a considerable time to more general archaeological studies, and to travel, and he has proved very useful as an assistant to the Director, more especially in connexion with the Hostel. Next year, he may be able to share with the Director the superintendence of the excavations, and may also help to expedite the work of publishing results, which has latterly fallen somewhat in arrear owing to a concentration of duties in the Director's hands.

Mr. Hasluck arrived, with Mr. Bosanquet, at the beginning of November, and devoted the winter (1) to attendance at archaeological lectures and the acquisition of the modern language, (2) to a comprehensive study, in Athens, of the history and antiquities of Cyzicus, in Asia Minor, with a view to an excavation which was to have been undertaken in the spring. The Committee regret that the proposed excavation was necessarily abandoned, through no fault of Mr. Hasluck, and in spite of repeated efforts at negotiation by the Director. Something, however, was done: for Mr. Hasluck, with the assistance of a grant of £90 voted for that purpose by the Managers of the Craven Fund at Cambridge, proceeded to the site at the end of April, accompanied by Mr. A. E. Henderson, of Constantinople (a former Student of the School), whom he assisted in a careful study and survey of the site itself, as a preliminary to future work upon it. While there, Mr. Hasluck collected some thirty-five unpublished inscriptions and two pieces of archaic sculpture, one of which (a sixth century relief of Herakles) was considered of sufficient value to be removed to the Imperial Museum at Constantinople.

Mr. Comyn was appointed to an 'Architectural Studentship' in connexion with the excavations in Crete. He proved most useful both in the preparation of sketch plans and architectural drawings, and in drawing the more important specimens of pottery; and, before the excavations commenced, he occupied himself in the neighbourhood of Athens by making a complete set of drawings of the beautiful

little Byzantine Church at Daou, at the south end of Mount Pentelicus, to which Mr. Bosanquet had invited his attention. After his return from Crete, his services were retained by special arrangement with the Committee, in order that he might superintend the erection of the new balcony of the Macmillan Hostel.

Mr. Oppé, after spending a semester at the University of Berlin, arrived in Athens in April, and (in addition to travel and general archaeology) worked steadily in the Library of the School at the obscure subject of Greek Oracles. He also made a walking tour in Boeotia and elsewhere for the purpose of visiting sites connected with this subject.

Mr. Henderson was readmitted as a Student for the third time, for the special purpose of the Cyzicus survey to which reference has already been made.

On considering the foregoing summary of work and study, the Committee are satisfied that a good class of students has made use of the School, with substantial advantage to themselves and with some actual, and more prospective, gain to archaeological knowledge. But the complete absence of second or third year students (with the single exception of Mr. Henderson) is a disappointing feature from the latter point of view; for the first year's work of any student is almost always to some extent of a preliminary nature, more valuable results being generally obtained at a later stage in his career. The educational value of a single season's travel and study in Greek lands is not to be despised; but, for a good output of original work, continuity in the personnel of the School is greatly to be desired.

On the other hand it is satisfactory to note that the minimum residence of three months in Greek lands, required of all students of the School, has this year been greatly exceeded in the majority of cases, and that no less than four of the students for next session are already doing preparatory work either in Greece itself or in Continental Museums.

Of the preceding year's students, Mr. J. H. Marshall has been appointed Director-General of the Archaeological Survey of India; Mr. Hopkinson has become a Lecturer in Greek at the University of Birmingham; and Mr. Frost, a lecturer in the Training College at Isleworth. Mr. Wells has settled down to the practice of his profession as an architect, and Mr. Penoyre has undertaken a course of Archaeological 'Extension' lectures. Messrs. Fyfe and Mackenzie, formerly students of the School, have served once more as Mr. Evans's assistants at Knossos. Mr. Edgar, formerly a student of the School, and now on the staff of the Museum at Ghizeh, spent some time in Athens, working both on the catalogue of that Museum and on the Report of excavations at Phylakopi.

To the 'Annual,' which appeared in May, Mr. Evans has again been the principal contributor, his paper on 'The Palace of Knossos' occupying about three-fourths of the volume. Other papers were contributed by Mr. Hogarth on his Excavations at Zakro, in Crete, by Prof. Boyd Dawkins on skulls taken from cave-burials in Zakro, and by Dr. Wilhelm, First Secretary of the Austrian School at Athens, on an Athenian Decree which forms part of the Finlay Collection in the Hostel of the British School.

Passing to the work of the Director, the Committee have next to record the

preliminary excavation of the early site at Palaikastro, on the eastern coast of Crete. The right to excavate this site had been originally obtained by Dr. Dörpfeld, who afterwards abandoned it in favour of the British. It was understood that Mr. Hogarth should have the first claim to it; but Mr. Hogarth, being unable to work in Crete this year, handed it over to the British School, who took it up on the failure of the negotiations for work at Cyzicus. The excavation was carried out under the supervision of the Director, with the assistance of the 'Architectural Student' appointed for the purpose. Of this excavation, in its different bearings, Mr. Bosanquet, who is here to-day, will give his own account. Suffice it to say that the site has already yielded valuable results, and promises well for the fuller excavation which the Committee hope to undertake next spring if sufficient funds are available. The site appears to have been unoccupied, and almost untouched, from Mycenaean times until the middle of the last century, and contains abundant remains of houses, large and small, of the Mycenaean period, together with numerous tombs and many hundred vases, both of that and of the earlier ('Kamáres') epoch. The methods of burial at this earlier period have been hitherto but little known, and are therefore of especial interest; and, since many of the skulls are well preserved, the Palaikastro tombs provide material for the student of physical anthropology as well as for the antiquarian in the narrower sense. Subscribers will be glad to hear that the British Association has made a grant of £50 for the expenses of an expert, who is to make a special study of these skulls with reference both to other ancient specimens and to living Cretan types.

The work at Palaikastro occupied, however, comparatively little of the Director's time. In Athens he was constantly busy. For, in addition to the ordinary work of administration, and the prolonged negotiations in connexion with Cyzicus, it was necessary to find time for the arduous work of sorting and preparing for publication the last results of those most important excavations at Phylakopi in Melos, which are no doubt still in the memory of subscribers. This labour—a legacy from the time anterior to Mr. Bosanquet's directorship—is now practically complete; and the definitive publication, which has been generously undertaken by the Society for the Promotion of Hellenic Studies, is expected shortly. The finest specimens of pottery from Phylakopi now adorn the Mycenae room in the Central Museum at Athens; and a number of duplicates have been brought home to England, by the courteous permission of the Greek Government, and will be divided between the Ashmolean, Fitzwilliam, and (probably) the British Museums. A full account of the excavations conducted by the School at Praesos in the spring of 1901 is also in preparation, and will appear in the next number of the 'Annual.'

The Library has been well maintained at an expense of rather more than £100; and a fresh catalogue will soon be needed.

The Hostel has been in constant use during the greater part of the year. It was always intended that a balcony should be added to the front of it when funds would permit. This has now been provided by the generosity of a former Director, Mr. Cecil Smith, and adds greatly both to the comfort and to the appearance of the building.

The Directors of other Foreign Schools in Athens have again, as always, proved themselves valuable friends to our Director and Students ; and our thanks are especially due to Drs. Dörpfeld, Richardson, and Wilhelm, for the welcome accorded to the latter at their valued lectures. Dr. Schrader, 2nd Secretary of the German School, and Dr. Svoronos, Keeper of the National Collection of Coins, have also earned our especial thanks.

It will be as satisfactory to Subscribers as to the Committee to see the Secretary once more back at his post. Until his return Mr. R. J. G. Mayor, of the Board of Education, most kindly continued to act as deputy, and the best thanks of all are due to him for this friendly service.

The Committee regret to have to report a deficit of £164 on the year's working. Part of this is due to a payment of £50 incurred last year, while the remainder is more than accounted for by a falling off both in subscriptions and in donations. On all grounds it is earnestly to be hoped that this deficiency may be speedily supplied by fresh subscriptions, without which the progress of the work in Crete will be seriously hampered, if not actually arrested.

The adoption of the report was moved by the Chairman. He contrasted the unavoidable dryness and indefiniteness of early Greek History a generation or more ago, when (as Carlyle complained, with reference to Thirlwall's first volume) it was nothing but 'Pelasgians,' 'Leleges,' 'Dolopes,' which were little more than names, with the modern methods of study, pursued continuously by such institutions as the School at Athens, which were gradually shedding light on the early Greek races and enabling us to see them as they lived. He shewed how the boundaries of Greek historical study were being pushed further and further back by researches in Crete and elsewhere. Such episodes as the siege of Troy, which were formerly looked on as beginnings, were now only signposts on the road ; we were getting back beyond the Iron age and the Bronze age to the Stone age ; and historians were joining hands with men of science on the common meeting ground of anthropology. He also spoke of the beneficent influence of such studies as those pursued jointly by scholars of various nationalities at Athens on international relations.

The motion was seconded by Prof. LEWIS CAMPBELL, and carried.

The Director, Mr. R. C. BOSANQUET, gave a further account of the excavations at Palaikastro, illustrated by lantern slides.

Dr. WALDSTEIN moved, and the Rev. BLOMFIELD JACKSON seconded,—'That Dr. PENROSE, Dr. REID, and Mr. MYRES be re-elected, and that Mr. R. J. G. MAYOR be elected, members of the Committee. That Dr. LEAF be re-elected Hon. Treasurer, Mr. LORING Hon. Secretary, Sir FREDERICK POLLOCK and Mr. EDWIN WATERHOUSE Auditors, for the coming year.' This was carried.

A vote of thanks to the Auditors was moved by Dr. PENROSE, seconded by Mr. F. E. THOMPSON, and carried.

A vote of thanks to the Chairman was moved by Mr. MACMILLAN, and carried by acclamation.

The proceedings then closed.

## THE BRITISH SCHOOL AT ATHENS.

1901-1902.

RECEIPTS AND EXPENDITURE ON REVENUE ACCOUNT,  
4TH OCTOBER, 1901, TO 3RD OCTOBER, 1902.

|  | <i>L s. d.</i>          | <i>L s. d.</i>   | <i>L s. d.</i>          |
|--|-------------------------|--|-------------------------|
| Subscriptions received or due during<br>the year as per account. . . . . | 812 2 0                 | House Maintenance year<br>to Midsummer 1902 . . . . .                | 54 7 10                 |
| Government Grant . . . . .   | 500 0 0                 | Hostel Maintenance year<br>to Midsummer 1902 . . . . .               | 71 16 5                 |
| Interest on Investment to 5th July .                                     | 56 8 9                  | Less Students' Fees . . . . .  | 37 14 8                 |
| Sale of Annual . . . . .   | 43 2 7                  |  |                         |
| Balance, being excess of Expenditure<br>over receipts . . . . .          | 36 8 1                  | Director's Stipend, one year to Mid-<br>summer 1902 . . . . .        | 34 1 9                  |
|  |                         | Publication of Annual . . . . .                                      | 500 0 0                 |
|  |                         | Printing, Postage, and Stationery .                                  | 191 11 1                |
|  |                         | Assistant Secretary's Salary, Hire of<br>Room and Sundries . . . . . | 14 10 4                 |
|  |                         | Studentships—<br>R. D. Wells, for 1900-1                             | 11 10 6                 |
|  |                         | M. N. Tod, Senior<br>Student . . . . .                               | 50 0 0                  |
|  |                         | H. Comyn, Architect . . . . .  | 150 0 0                 |
|  |                         | F. W. Hasluck, Student . . . . .                                     | 100 0 0                 |
|  |                         |  | 400 0 0                 |
|  |                         | Excavations . . . . .  | 241 19 11               |
|  | <hr/> <i>£1,448 1 5</i> |  | <hr/> <i>£1,448 1 5</i> |

RECEIPTS AND EXPENDITURE ON CAPITAL ACCOUNT,  
4TH OCTOBER, 1901, TO 3RD OCTOBER, 1902.

|   | <i>L s. d.</i>        | <i>L s. d.</i>             |                       |
|---|-----------------------|----------------------------|-----------------------|
| Donations, as per list . . . . .                                | 19 2 0                | Library . . . . .          | 101 12 3              |
| Balance, being excess of Expenditure<br>over Receipts . . . . . | 122 6 9               | Hostel Furniture . . . . . | 39 16 6               |
|   | <hr/> <i>£141 8 9</i> |                            | <hr/> <i>£141 8 9</i> |

## BYZANTINE ARCHITECTURE FUND.

|                                   | £ s. d.        |                                 | £ s. d.        |
|-----------------------------------|----------------|---------------------------------|----------------|
| Balance from last Account . . . . | 55 1 8         | Printing Circulars . . . .      | 1 5 0          |
|                                   |                | Balance carried forward . . . . | 53 16 8        |
|                                   | <u>£55 1 8</u> |                                 | <u>£55 1 8</u> |

## CRAVEN GRANT.

|   | £ s. d.        |  | £ s. d.        |
|---|----------------|--|----------------|
| Grant from Craven Managers, Cambridge, 26th March, 1902 . . . . | 90 0 0         | Expended during the year on Exploration at Cyzicus . . . . | 75 4 10        |
|   |                | Balance, carried forward . . . .                           | 14 15 2        |
|   | <u>£90 0 0</u> |  | <u>£90 0 0</u> |

## BALANCE ACCOUNT, 3RD OCTOBER, 1902.

|   | £ s. d.            |  | £ s. d.            |
|---|--------------------|--|--------------------|
| Byzantine Architecture Fund as per Account annexed . . . .  | 53 16 8            | Investment—India 3% Stock, at par . . . .                      | 2,000 0 0          |
| Craven Grant as per Account annexed . . . .   | 14 15 2            | Studentships—E. L. Forster, paid in advance for 1902-3 . . . . | 50 0 0             |
| Studentships, owing M. N. Tod . . . .   | 75 0 0             | Subscriptions outstanding . . . .                              | 5 5 0              |
| Subscriptions paid in advance . . . .   | 8 1 0              | Cash at Bank . . . .   | 522 14 6           |
| Balance representing the funds of the School other than the property in land and building, furniture and library, as per last account . . . . | 2,585 1 6          |  |                    |
| <i>Less</i> Balance of Receipts and Expenditure on Revenue Account for the year to date as above . . . .                                      | £36 8 1            |  |                    |
| Ditto Capital as above . . . .  | £122 6 9           | £158 14 10   | 2,426 6 8          |
|   | <u>£2,577 19 6</u> |  | <u>£2,577 19 6</u> |

Examined and found correct.

EDWIN WATERHOUSE, F.C.A.  
LINGEN.  
F. POLLOCK.

3rd December, 1902.

## DONATIONS—1901-1902.

|                            | £ s. d.              |
|----------------------------|----------------------|
| Burnett, J. J. . . . .     | 1 1 0                |
| J.D. . . . .               | 1 1 0                |
| Egerton, Sir E. H. . . . . | 5 0 0                |
| Palli, Mrs. F. L. . . . .  | 2 0 0                |
| Sharpe, Miss C. . . . .    | 10 0 0               |
|                            | <hr/>                |
|                            | <hr/> <u>£19 2 0</u> |

## ANNUAL SUBSCRIPTIONS—1901-1902.

|  | £ s. d. |
|--|---------|
| HIS MAJESTY THE KING . . . . .           | 25 0 0  |
| The University of Oxford . . . . .       | 100 0 0 |
| The University of Cambridge . . . . .    | 100 0 0 |
| The Hellenic Society . . . . .           | 100 0 0 |
| The Society of Antiquaries . . . . .     | 5 5 0   |
| Brasenose College, Oxford . . . . .      | 5 0 0   |
| Christ Church, Oxford . . . . .          | 20 0 0  |
| Corpus Christi College, Oxford . . . . . | 5 0 0   |
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 Richards, H. P., Esq., Wadham College, Oxford.  
 Richmond, The Right Rev. The Bishop of, the Rectory, Stanhope R.S.O., Co. Durham.  
 Robb, Mrs., 46, Rutland Gate, S.W.  
 Roberts, Prof. W. Rhys, University College, Bangor.  
 Rosebery, The Right Hon. the Earl of, K.G., The Durdans, Epsom.  
 Rothschild, The Right Hon. Lord, 148, Piccadilly, W.  
 Rothschild, Messrs. N. M., and Sons, New Court, E.C.  
 Rothschild, The Hon. Walter, 148, Piccadilly, W.  
 Rumbold, His Excellency Sir Horace, Bart., G.C.B., British Embassy, Vienna.  
 Salisbury, The Most Hon. the Marquis of, K.G., Arlington Street, W.  
 Sandy, J. E., Esq., Litt.D., St. John's College, Cambridge.  
 Saumarez, The Right Hon. Lord de, Shrubland Park, Coddham, Suffolk.  
 Scott, C. P., Esq., The Firs, Fallowfield, Manchester.  
 Seaman, Owen, Esq., Tower House, Putney, S.W.  
 Searle, G. von U., Esq., 30, Edith Road, West Kensington, W.  
 Sharkey, J. A., Esq., Christ's College, Cambridge.  
 Sharpe, Miss C., Stoneycroft, Elstree.  
 Shove, Miss E., 25, St. Martin's Crescent, Regent's Park, N.W.  
 Simpson, W. W., Esq., Winkley, Whalley.  
 Smith, Cecil H., Esq., LL.D., British Museum, W.C.  
 Smith, Mrs. C. H., 18, Earl's Terrace, Kensington, W.

- Smith, J. G., Esq.  
 Smith, R. A. H. Bickford, Esq., 29, Ladbroke Grove, W.  
 Southwell, The Right Rev. the Bishop of Thurgarton Priory, Notts.  
 Stannus, Hugh, Esq., 64, Larkhall Rise, Clapham, S.W.  
 Steinkopff, E., Esq., 47, Berkeley Square, W.  
 Stewart, Mrs. H. F., 5, Adams Road, Cambridge.  
 Sullivan, John, Esq., 32, Fitzwilliam Square, Dublin.  
 Tancock, The Rev. C. C., The School, Tonbridge.  
 Taylor, The Rev. Dr., Master of St. John's College, Cambridge.  
 Taylor, J. E., Esq., 20, Kensington Palace Gardens, W.  
 Teale, J. Pridgin, Esq., F.R.S., 38, Cookridge Street, Leeds.  
 Thompson, Sir E. M., K.C.B., British Museum, W.C.  
 Thompson, Sir Henry, Bart., 35, Wimpole Street, W.  
 Thompson, H. V., Esq., 19, Portman Square, W.  
 Thompson, F. E., Esq., 16, Primrose Hill Road, N.W.  
 Thursfield, J. R., Esq., Fryth, Great Berkhamsted.  
 Tozer, The Rev. H. F., 18, Norham Gardens, Oxford.  
 Tuckett, F. F., Esq., Frenchay, Bristol.  
 Tuke, Miss Margaret, Newnham College, Cambridge.  
 Vaughan, H., Esq.  
 Vaughan, E. L., Esq., Eton College.
- Verrall, A. W., Esq., Litt.D., Selwyn Gardens, Cambridge.  
 Vince, J. H. Esq., Bradfield College, Berkshire.  
 Waldstein, Charles, Esq., Litt.D., King's College, Cambridge.  
 Wandsworth, The Right Hon. Lord, 10, Great Stanhope Street, W.  
 Wantage, The Lady, 2, Carlton Gardens, S.W.  
 Ward, John, Esq., F.S.A., Lenoxvale, Belfast.  
 Warre, The Rev. E., D.D., Eton College, Windsor.  
 Warren, T. H., Esq., President of Magdalen College, Oxford.  
 Waterhouse, Edwin, Esq., Feldemore, near Dorking.  
 Weber, Sir. H., M.D., 10, Grosvenor Street, W.  
 Wedgwood, G., Esq., Idle Rocks, Stone, Staff.  
 Wells, J., Esq., Wadham College, Oxford.  
 Werner, Julius, Esq., 82, Piccadilly, W.  
 West, H. H., Esq., c/o R. W. West, Esq., Casa Bianca, Alassio, N. Italy.  
 Whateley, A. P., Esq., 4, Southwick Crescent, W.  
 Wilson, R. D., Esq., 38, Upper Brook Street, W.  
 Wilson, Robert, Esq., 7, St. Andrew's Place, Regent's Park, N.W.  
 Wimborne, The Right Hon. Lord, 22, Arlington Street, S.W.  
 Winkworth, Mrs., Holly Lodge, Campden Hill, W.  
 Wroth, Warwick, Esq., British Museum, W.C.  
 Yates, Rev. S. A. Thompson, 43, Phillimore Gardens, W.  
 Yorke, V. W., Esq., Forthampton Court, Tewkesbury.  
 Vule, Miss A., Tarradale House, Ross-shire.

## DIRECTORS OF THE SCHOOL.

1886—1902.

- F. C. PENROSE, M.A., D.C.L., LL.D., F.R.S., 1886—1887.  
ERNEST A. GARDNER, M.A., 1887—1895.  
CECIL H. SMITH, LL.D., 1895—1897.  
DAVID G. HOGARTH, M.A., 1897—1900.  
R. CARR BOSANQUET, M.A., 1900— .

## STUDENTS OF THE SCHOOL.

1886—1902.

- Ernest A. Gardner,  
Formerly Fellow of Gonville and Caius College, Cambridge, and Craven University Student. Admitted 1886—87, Director of the School, 1887—1895. Yates Professor of Archaeology at University College, London.
- David G. Hogarth,  
Fellow and formerly Tutor of Magdalen College, Oxford, and first Craven Fellow. Director of the School 1897—1900. Admitted 1886—87. Re-admitted (for work in Cyprus) 1887—88.
- Rupert Clarke,  
Exeter College, Oxford. Admitted 1886—87.
- F. H. H. Guilleainard,  
Gonville and Caius College, Cambridge. First University Reader in Geography. Admitted (for work in Cyprus) 1887—88.
- Montague R. James,  
Fellow and late Tutor of King's College, Cambridge ; Director of the Fitzwilliam Museum. Admitted (for work in Cyprus) 1887—88, with grant of £100 from the University.
- R. Elsey Smith,  
Professor of Architecture and Construction, King's College, London. Appointed to Studentship by Royal Institute of British Architects, 1887—88.
- Robert Weir Schultz,  
Admitted as Travelling Student and Gold Medallist of the Royal Academy, 1887—88. Re-admitted 1888—89, 1889—90.
- Sidney H. Barnsley,  
Admitted as Student of the Royal Academy, 1887—88. Re-admitted 1889—90, 1890—91.
- J. A. R. Munro,  
Fellow and Tutor of Lincoln College, Oxford. Admitted (for work in Cyprus) 1888—89. Re-admitted (for same purpose) 1889—90.

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| H. Arnold Tubbs,         | Pembroke College, Oxford ; Craven University Fellow. Professor of Classics at University College, Auckland, N.Z. Admitted (for work in Cyprus) 1888-89. Re-admitted (for same purpose) 1889-90.  |
| James G. Frazer,         | Fellow of Trinity College, Cambridge. Admitted 1889-90 with grant of £100 from the University of Cambridge to collect material for commentary on Pausanias.  |
| William Loring,          | Late Fellow of King's College, Cambridge. Examiner in the Board of Education. Secretary of the School since 1897. Appointed to Cambridge Studentship, 1889-90. Re-admitted as Craven University Student, 1890-91, 1891-92, and 1892-93.  |
| W. J. Woodhouse,         | Queen's College, Oxford. Professor of Greek in the University of Sydney, N.S.W. Formerly Lecturer in Ancient History and Political Philosophy at the University of St. Andrew's. Appointed to Oxford Studentship, 1889-90. Re-admitted as Craven University Fellow, 1891-92 and 1892-93. |
| G. C. Richards,          | Late Fellow of Hertford College ; Lecturer at Oriel College, Oxford. Formerly Professor of Greek at University College, Cardiff. Admitted as Craven University Fellow, 1889-90. Re-admitted 1890-91.   |
| O. H. Parry,             | Magdalen College, Oxford. Archbishop's Missioner to the Nestorian Christians. Admitted 1889-90.  |
| J. R. Stainer,           | Magdalen College, Oxford. Admitted 1889-90.  |
| R. A. H. Bickford-Smith, | Trinity College, Cambridge. Admitted 1889-90.  |
| A. G. Bather,            | Late Fellow of King's College, Cambridge ; Assistant Master at Winchester College. Admitted 1889-90. Re-admitted 1891-92 on appointment to the Cambridge Studentship 1892-93 as Prendergast Greek Student ; and again, 1893-94, as Cambridge Student.                                    |
| E. E. Sikes,             | Fellow and Tutor of St. John's College, Cambridge. Appointed to Cambridge Studentship, 1890-91.  |
| J. G. Milne,             | Corpus Christi College, Oxford. Examiner in the Board of Education. Appointed to Oxford Studentship, 1890-91.  |
| H. Stuart Jones,         | Fellow and Tutor of Trinity College, Oxford. Director-elect of the British School at Rome. Admitted as Craven University Fellow, 1890-91. Re-admitted 1892-93.   |
| Miss Eugénie Sellers,    | Admitted 1890-91. (Mrs. S. Arthur Strong.)   |
| F. B. Baker,             | Christ's College, Cambridge. Assistant Master at Malvern College. Admitted 1891-92.  |
| C. C. Inge,              | Magdalen College, Oxford. Appointed 1891-92 to the Oxford Studentship.   |
| E. F. Benson,            | King's College, Cambridge. Admitted 1891-92, with grant of £100 from the Worts Fund at Cambridge ; 1892-93 on appointment to the Cambridge Studentship ; 1893-94 as Craven Student ; and 1894-95 as Prendergast Student.   |
| J. G. Smith,             | Magdalen College, Oxford. Admitted 1891-92. Re-admitted 1895-96.   |
| V. W. Yorke,             | Late Fellow of King's College, Cambridge. Admitted 1892-93. Re-admitted 1893-94.   |

- J. L. Myres, Student and Lecturer of Christ Church, and late Fellow of Magdalen College, Oxford. Admitted 1892-93. Re-admitted 1893-94, and 1894-95 as Craven Fellow.
- R. J. G. Mayor, Late Fellow of King's College, Cambridge. Examiner in the Board of Education. Admitted 1892-93.
- R. Carr Bosanquet, Trinity College, Cambridge. Assistant Director of the School, 1899-1900. Director since 1900. Admitted 1892-93. Re-admitted as Craven University Student 1894-95, 1895-96, and 1896-97.
- J. M. Cheetham, Christ Church, Oxford. Admitted on appointment to the Oxford Studentship. 1892-93.
- E. R. Bevan, New College, Oxford. Admitted 1893-94.
- A. F. Findlay, Sent out from Aberdeen by the United Presbyterian Church of Scotland. Admitted 1894-95.
- T. Duncan, Sent out from Aberdeen by the Church of Scotland. Admitted 1894-95.
- J. E. Brooks, St. Peter's College, Cambridge. Admitted 1894-95. Re-admitted as Associate 1896-97.
- H. Awdry, New College, Oxford. Assistant Master at Wellington College. Admitted 1894-95.
- Duncan Mackenzie, Universities of Edinburgh and Vienna. Admitted 1895-96. Re-admitted 1896-97, 1897-98 and 1898-99.
- Archibald Paterson, University of Edinburgh. Admitted 1895-96.
- Charles R. R. Clark, Appointed 1895-96, and re-appointed 1896-97, by the Managing Committee to an Architectural Studentship.
- C. C. Edgar, Oriel College, Oxford. English Member of the Cataloguing Committee, Ghizeh Museum. Admitted 1895-96, and re-admitted 1896-97 (as Craven University Fellow, 1897-98 and 1898-99).
- F. R. Earp, Late Fellow of King's College, Cambridge. Admitted 1896-97.
- F. A. C. Morrison, Jesus College, Cambridge. Admitted (as Prendergast Greek Student) 1896-97.
- H. H. West, Trinity College, Cambridge. Admitted 1896-97.
- Miss C. A. Hutton, Girton College, Cambridge. Admitted 1896-97.
- Pieter Rodeck, Architect to Arab Monuments Committee, Cairo. Admitted 1896-97 as Travelling Student and Gold Medallist of the Royal Academy.
- J. G. C. Anderson, Late Fellow of Lincoln College, Student and Lecturer of Christ Church, Oxford. Admitted (as Craven University Fellow) 1896-97.
- J. W. Crowfoot, Brasenose College, Oxford. Education Department, Cairo. Formerly Lecturer in Classics, Mason College, Birmingham. Admitted, on appointment to the Oxford Studentship, 1896-97. Re-admitted 1897-98.
- W. W. Reid, Universities of Aberdeen and Edinburgh. Admitted, as holder of Blackie Travelling Scholarship, 1896-97.
- A. E. Henderson, Gold Medallist and Travelling Student of the Royal Academy. Admitted 1897-98. Re-admitted 1898-99 and 1901-02.

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| W. A. Curtis,              | Heriot Scholar of Edinburgh University. Admitted 1897-98.   |
| A. J. Spilsbury,           | Queen's College, Oxford. Admitted 1897-98, on appointment to the Oxford Studentship.  |
| E. B. Hoare,               | Magdalen College, Oxford. Admitted 1897-98, as Architectural Student.   |
| J. C. Lawson               | Fellow and Lecturer of Pembroke College, Cambridge. Admitted as Craven University Student, 1898-99. Re-admitted 1899-1900.  |
| C. D. Edmonds,             | Emmanuel College, Cambridge. Assistant Master at Elstree School. Admitted as Prendergast Student, 1898-99.  |
| J. H. Marshall,            | King's College, Cambridge. Director-General of the Archaeological Survey of India. Admitted, 1898-99. Re-admitted as Prendergast Student 1900-01                    |
| Clement Gutch,             | King's College, Cambridge. Lecturer at Girton College. Admitted, 1898-99.   |
| F. B. Welch,               | Magdalen College, Oxford. Assistant Master at Pocklington School. Admitted as Craven University Fellow, 1898-99. Re-admitted 1899-1900.                             |
| T. D. Atkinson,            | Secretary of Cambridge Antiquarian Society. Admitted as Architectural Student, 1898-99.   |
| J. K. Fotheringham,        | Merton and Magdalen Colleges, Oxford. Admitted on appointment to Oxford Studentship, 1898-99.   |
| J. H. Hopkinson,           | University College, Oxford. Lecturer in Greek, University of Birmingham. Admitted as Craven University Fellow, 1899-1900 and 1900-01.                               |
| S. C. Kaines-Smith,        | Magdalene College, Cambridge. Admitted 1899-1900, on appointment to Cambridge Studentship.  |
| Miss O. C. Köhler,         | Girton College, Cambridge. Admitted 1899-1900.  |
| D. Theodore Fyfe,          | Admitted 1899-1900, on appointment to Architectural Studentship. Architect to the Cretan Exploration Fund.  |
| K. T. Frost,               | Brasenose College, Oxford. Admitted on appointment to the Oxford Studentship, 1900-01.  |
| R. D. Wells,               | Trinity College, Cambridge. Admitted on appointment to the Architectural Studentship, 1900-01.  |
| J. ff. Baker-Penoyre,      | Keble College, Oxford. Librarian of the Society for Promoting Hellenic Studies. Admitted 1900-01.   |
| Marcus N. Tod,             | Senior Scholar of St. John's College, Oxford; Craven University Fellow; Assistant-Director of the School. Admitted on appointment to "Senior Studentship," 1901-02. |
| F. W. Hasluck,             | King's College, Cambridge. Admitted on appointment to Cambridge Studentship, 1901-02.   |
| C. Heaton Comyn,           | F.R.I.B.A. Admitted on appointment to the Architectural Studentship, 1901-02.   |
| Miss H. L. Lorimer,        | Girton College, Cambridge. Classical Tutor of Somerville College, Oxford. Admitted as Pfeiffer Travelling Student, 1901-02.   |
| Baroness E. Rosenörn-Lehn, | Royal Holloway College, and University College, London. Admitted 1901-02.   |
| A. P. Oppé,                | New College, Oxford. Assistant Professor of Greek at St. Andrew's University. Admitted 1901-02.   |

## ASSOCIATES OF THE SCHOOL.

- Professor J. B. Bury, Trinity College, Cambridge. Admitted 1895—96.  
Rev. A. H. Cruickshank, The College, Winchester. Admitted 1895—96.  
Arthur J. Evans, L.L.D., Keeper of the Ashmolean Museum, Oxford. Admitted  
F.R.S. 1895—96.  
Ambrose Poynter, Admitted 1896—97.  
J. E. Brooks, A former Student of the School. Admitted 1896—97.  
J. L. Myres, Student of Christ Church, Oxford ; a former Student of the  
School. Admitted 1896—97.  
Professor E. A. Gardner, Formerly Director of the School Admitted 1897—98.

## METHODS OF WORK AND TEACHING.

*Extracted from a recent report of the present Director to the Managing Committee.*

UNDER an ideal system most students would spend two, some three, seasons in Greece, devoting the first year to general studies, the second to some special subject.

During the first year a man need not lose sight of his special subject, but in most cases it would pay him to adopt something like the following programme :

[August and] September. In Berlin (Munich, Dresden) to become familiar with spoken German and so be able to profit by some of the 3 or 4 courses of lectures given by the Secretaries of German and Austrian Institutes.

October. Arrive in Greece. Face the difficulties of language and travelling. See Olympia, Delphi, Mycenae, Epidaurus, the Heraeum near Argos, before the rains begin in November.

About November 15. Settle down in Hostel for 3 or 4 months of steady work on sites and in Museums, attending some of the half-dozen available courses of lectures, and making frequent short excursions into the country, by train, bicycle, carriage, or on mule-back. A bicycle is invaluable.

This residence in the Hostel, with occasional absences for a few nights in the country, should last until the beginning or middle of March according to the season.

March, April. Travel, study ancient sites.

If possible join one of the island-cruises to which Professor Gardner and Professor Dörpfeld have hospitably admitted students in the past.

May, June. Begin to concentrate attention on special work : e.g. a man may assist in excavations, with a view to working upon the results during the coming year and excavating with more or less complete control or independence in his second summer : or he may explore a given district in Greece or Asia Minor, an island or group of islands : or he may work his way homewards through a number of Museums in Italy, Austria and Germany : or attend Mau's summer-course of lectures at Pompeii and afterwards spend some months in Rome and the cooler Etruscan cities. In the latter case he will do well to attach himself to the British School at Rome (Palazzo Odescalchi), where a library is being formed and advice and information may be obtained.

For the second year it is impossible to formulate a definite scheme. It should be devoted almost entirely to special work in a narrower field.

The course here suggested must be modified in different ways to suit each case. There will always be men who, like most of the French students, are already specialists in some branch of classical learning and only seek fresh material for research. On the other hand there will be others who wish to see something of all sides of ancient life, to visit sites and battle fields, illuminating and colouring their past reading and fitting themselves for general classical teaching : but have no time for minute archaeological studies.

It is evident that in each year the methods and matter of the teaching at the School must be adapted to the requirements of the students. Students from English universities will never have the love of formal lectures which distinguishes those from America, and where the numbers are small it will often be better to teach, as Dr. Wolters has been in the habit of doing, by means of informal visits to sites and Museums.

## RULES AND REGULATIONS

OF THE

## BRITISH SCHOOL AT ATHENS.

## OBJECTS OF THE SCHOOL.

I. The first aim of the School shall be to promote the study of Greek archaeology in all its departments. Among these shall be (i) the study of Greek art and architecture in their remains of every period ; (ii) the study of inscriptions ; (iii) the exploration of ancient sites ; (iv) the tracing of ancient roads and routes of traffic.

II. Besides being a School of Archaeology, it shall be also, in the most comprehensive sense, a School of Classical Studies. Every period of the Greek language and literature, from the earliest age to the present day, shall be considered as coming within the province of the School.

III. The School shall also be a centre at which information can be obtained and books consulted by British travellers in Greece.

IV. For these purposes a Library shall be formed, and maintained, of archeological and other suitable books, including maps, plans, and photographs.

## THE SUBSCRIBERS.

V. The following shall be considered as Subscribers to the School :—

- (1) Donors of £10 and upwards.
- (2) Annual Subscribers of £1 and upwards during the period of their subscription.
- (3) Corporate bodies subscribing £50 at one time or £5 annually.

VI. A corporate body subscribing not less than £50 a year, for a term of years, shall, during that term, have the right to nominate a member of the Managing Committee.

VII. A meeting of Subscribers shall be held in October of each year, at which each Subscriber shall have one vote. A subscribing corporate body may send a representative. At this meeting a report from the Managing Committee shall be presented, including a financial statement and selections from the reports of the Director and Students for the season. At this meeting shall also be annually elected or re-elected the Treasurer and the Secretary of the School, two Auditors, and four members of the Managing Committee, in place of those retiring, under Rule XIII. (3).

VIII. Special meetings of Subscribers may, if necessary, be summoned by the Managing Committee.

IX. Subscribers shall be entitled to receive a copy of any reports that may be published by the School, to use the Library, and to attend the public meetings of the School, whenever they may be in Athens.

## THE TRUSTEES.

X. The property of the School shall be vested in three Trustees, who shall be appointed for life, except as hereinafter provided. Vacancies in the number of Trustees shall be filled up at the annual meeting of the Subscribers.

XI. In the event of a Trustee becoming unfit, or incapable of acting, he may be removed from his office by a majority of three-fourths of those present at a special meeting of Subscribers summoned by the Managing Committee for that purpose, and another Trustee shall by the same majority be appointed in his place.

XII. In the event of the death or resignation of a Trustee occurring between two annual meetings, the Managing Committee shall have the power of nominating another Trustee to act in his place until the next annual meeting.

## THE MANAGING COMMITTEE.

XIII. The Managing Committee shall consist of the following :—

- (1) The Trustees of the School.
- (2) The Treasurer and Secretary of the School.
- (3) Twelve Members elected by the Subscribers at the annual meetings. Of these, four shall retire in each year, at first by lot, afterwards by rotation. Members retiring are eligible for re-election.
- (4) The members nominated by corporate bodies under Rule VI.

XIV. The Committee shall have control of all the affairs of the School, and shall decide any dispute that may arise between the Director and Students. They shall have power to deprive any Student of the use of the school-building.

XV. The Committee shall meet as a rule once in every two months ; but the Secretary or Treasurer may, with the approval of two members of the Committee, summon a special meeting when necessary.

XVI. Due notice of every meeting shall be sent to each member of the Committee by a summons signed by the Secretary. Three members of the Committee shall be a quorum.

XVII. In case of an equality of votes, the Chairman shall have a second or casting vote.

XVIII. In the event of vacancies occurring among the officers or on the Committee between the annual elections, they may be provisionally filled up by the Committee until the next annual meeting.

#### STUDENTS AND ASSOCIATES.

XIX. The Students shall consist of the following :—

- (1) Holders of travelling fellowships, studentships, or scholarships at any University of the United Kingdom or of the British Colonies.
- (2) Travelling Students sent out by the Royal Academy, the Royal Institute of British Architects, or other similar bodies.
- (3) Other persons who shall satisfy the Managing Committee that they are duly qualified to be admitted to the privileges of the School.

No person shall be admitted as a Student who does not intend to reside at least three months in Greek lands.

XX. Students attached to the School will be expected to pursue some definite course of study or research in a department of Hellenic studies, and to write in each season a report upon their work. Such reports shall be submitted to the Director, shall by him be forwarded to the Managing Committee, and may be published by the Committee if and as they think proper.

XXI. Intending Students are required to apply to the Secretary. They will be regarded as Students from the date of their admission by the Committee to the 31st day of October next following; but any Student admitted between July 1st and October 31st in any year shall continue to be regarded as a Student until October 31st of the following year.

XXII. The Managing Committee may elect as Associates of the School any persons actively engaged in study or exploration in Greek lands; and may also elect as honorary members such persons as they may from time to time think desirable.

XXIII. Students, Associates, and honorary members, shall have a right to use the Library of the School, and to attend all lectures given in connexion with the School, free of charge.

XXIV. Students shall be expected to reside in the Hostel provided for them, except with the sanction of the Managing Committee. Priority of claim to accommodation in the Hostel shall be determined by the Committee.

#### THE DIRECTOR.

XXV. The Director shall be appointed by the Managing Committee, on terms which shall be agreed upon at the time, for a period of not more than three years. He shall be eligible for re-election.

XXVI. He shall have possession of the school-building as a dwelling-house; but Students of the School shall have a right to the use of the Library at all reasonable times.

XXVII. It shall be his duty (1) to guide and assist the studies of Students and Associates of the School, affording them all the aid in his power, and also to see that reports are duly furnished by Students, in accordance with Rule XX., and placed in the hands of the Secretary before the end of June; (2) to act as Editor of the School Annual.

XXVIII. (a) Public Meetings of the School shall be held in Athens during the season, at which the Director and Students of the School shall read papers on some subject of study or research, and make reports on the work undertaken by the School. (b) The Director shall deliver lectures to Students of the School. At least six of such meetings and lectures shall be held in the course of each session.

XXIX. He may at his discretion allow persons, not Students of the School, to use the Library and attend his lectures.

XXX. He shall be resident at Athens from the beginning of November in each year to the end of the following June, but shall be at liberty to absent himself for short periods for purposes of exploration or research.

XXXI. At the end of each season he shall report to the Managing Committee—(i) on the studies pursued during the season by himself and by each Student; (ii) on the state of the School-premises and the repairs needed for them; (iii) on the state of the Library and the purchases of books, &c., which he may think desirable; and (iv) on any other matter affecting the interests of the School.

XXXII. In case of misconduct the Director may be removed from his office by the Managing Committee by a majority of three-fourths of those present at a meeting specially summoned for the purpose. Of such meeting at least a fortnight's notice shall be given.

## RULES FOR THE MACMILLAN HOSTEL.

XXXIII. The Hostel shall be managed by the Students for the time being, subject to the control of the Director.

XXXIV. The Director shall have power to exclude a Student from the Hostel in case of misconduct; but such exclusion must be immediately reported to the Managing Committee.

XXXV. The Students shall, until further notice, pay a fixed charge of 20 drachmas (paper) a week for their rooms, this payment to include fire, lighting, and the necessary servants' wages.

XXXVI. Associates of the School, members of the Committee, and ex-directors, may be admitted to residence in the Hostel. Other persons, if seriously engaged in study or research, may be admitted by the Director at his discretion. But no person shall reside in the Hostel under this rule to the exclusion of any Student desiring admission.

XXXVII. The weekly charge for residents other than Students shall be 30 drachmas (paper) until further notice.

XXXVIII. The Director shall draw up further rules for the internal management of the Hostel; such rules to be subject to the approval of the Managing Committee.

## RULES FOR THE LIBRARY.

XXXIX. The Director shall have power to make rules for the management of the Library, its use by Students, and the like; such rules to be subject to the approval of the Managing Committee.

## PUBLICATION.

XL. No publication whatever, respecting the work of the School, shall be made without the previous approval of the Committee.

## THE FINANCES.

XLI. All money received on behalf of the School beyond what is required for current expenses shall be invested in the names and at the discretion of the Trustees.

XLII. The banking account of the School shall be placed in the names of the Treasurer and Secretary, who shall sign cheques jointly.

XLIII. The first claim on the revenue of the School shall be the maintenance and repair of the School-building, and the payment of rates, taxes, and insurance.

XLIV. The second claim shall be the salary of the Director, as arranged between him and the Managing Committee.

XLV. In case of there being a surplus, a sum shall be annually devoted to the maintenance of the Library of the School and to the publication of a report; and a fund shall be formed from which grants may be made for travelling and excavation.

*Revised, 1899.*

## MANAGING COMMITTEE, 1902—1903.

EDWIN FRESHFIELD, Esq., LL.D.

SIR RICHARD JEBB, Litt.D., D.C.L., LL.D., M.P. } *Trustees.*  
GEORGE A. MACMILLAN, Esq., D. Litt.

D. B. MONRO, Esq., M.A., Provost of Oriel. Appointed by the University of Oxford.

PROFESSOR WILLIAM RIDGEWAY, M.A. Appointed by the University of Cambridge.

SIDNEY COLVIN, Esq., M.A. Appointed by the Hellenic Society.

ARTHUR J. EVANS, Esq., LL.D., F.R.S.

PROFESSOR ERNEST GARDNER, M.A.

PROFESSOR PERCY GARDNER, Litt.D.

MISS JANE E. HARRISON, D. Litt., LL.D.

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May 1903

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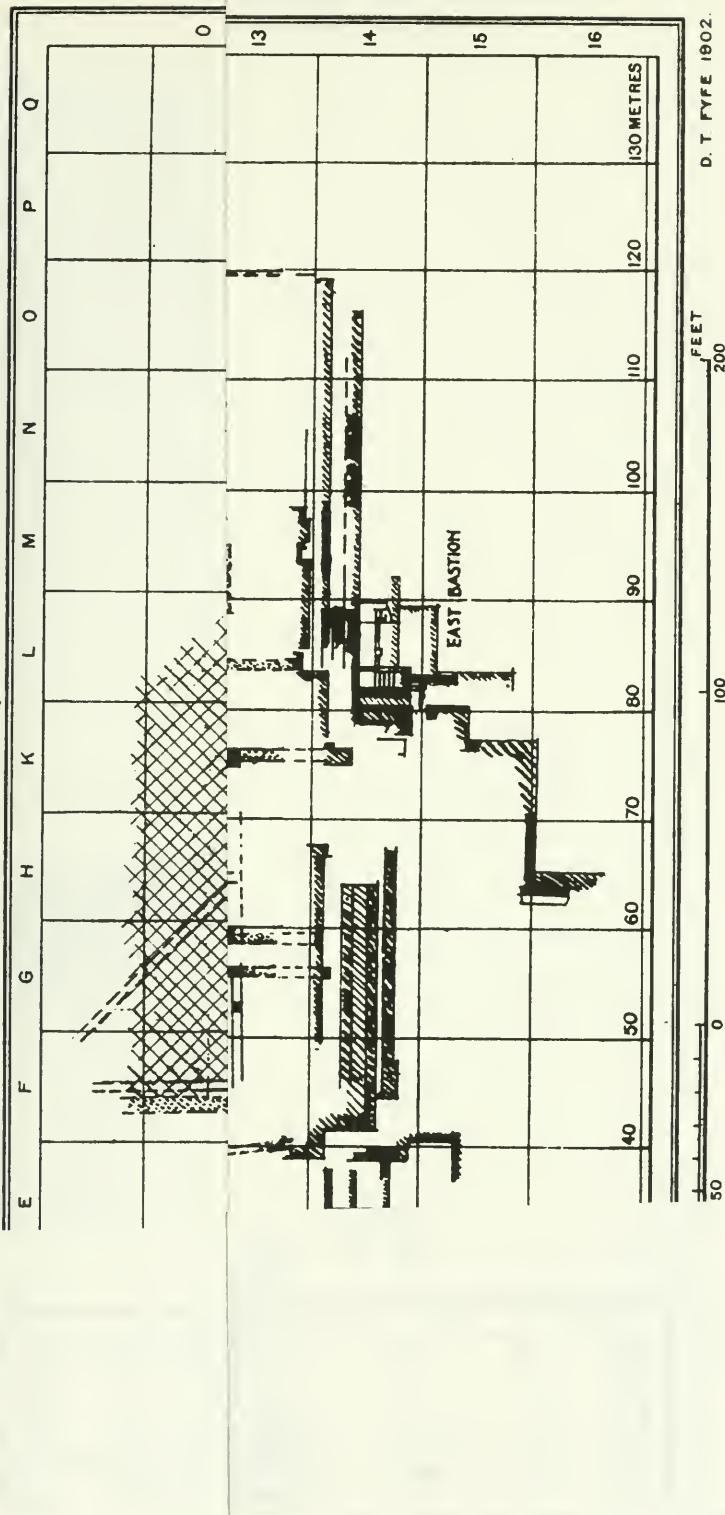
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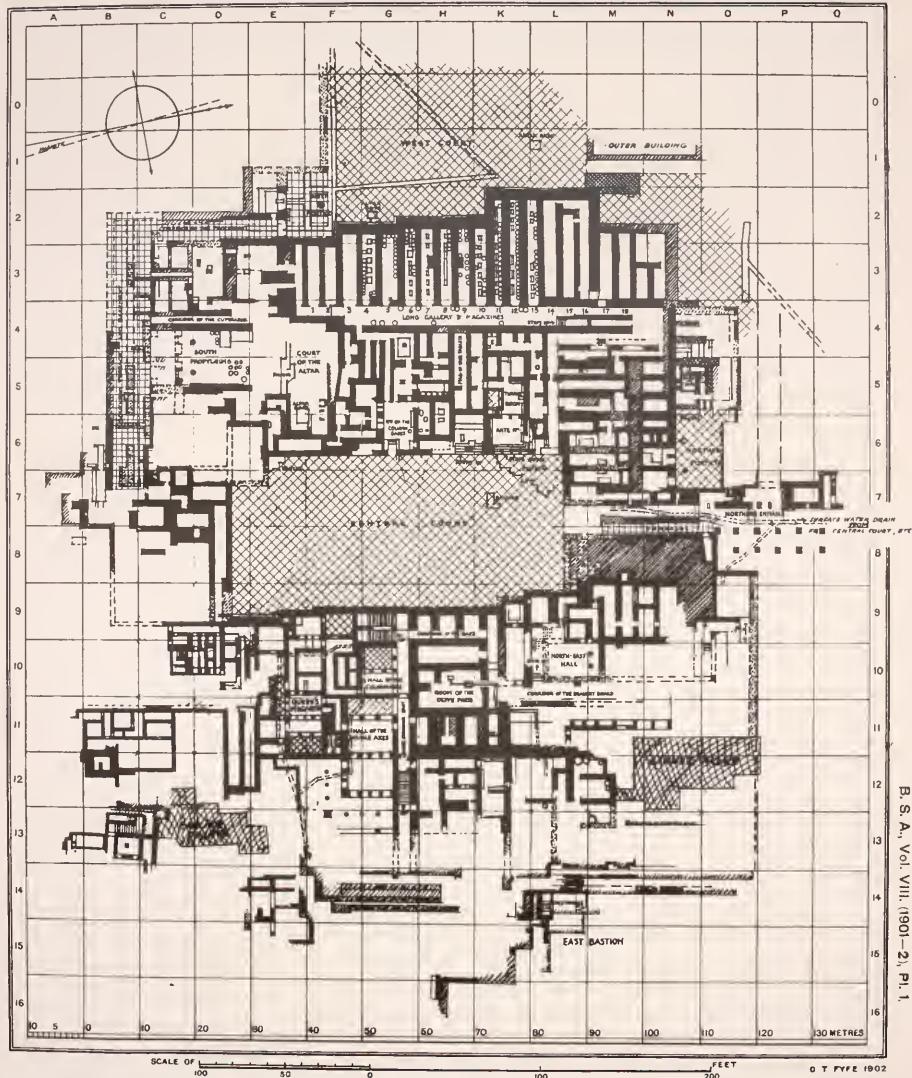
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SKETCH PLAN OF THE PALACE OF KNOSSOS.



B. S. A., Vol. VIII. (1901-2), Pl. 1



IVORY FIGURE AND HEAD FROM KNOSSOS.



IVORY FIGURE AND HEAD FROM KOSHO.



1.



2.

3.



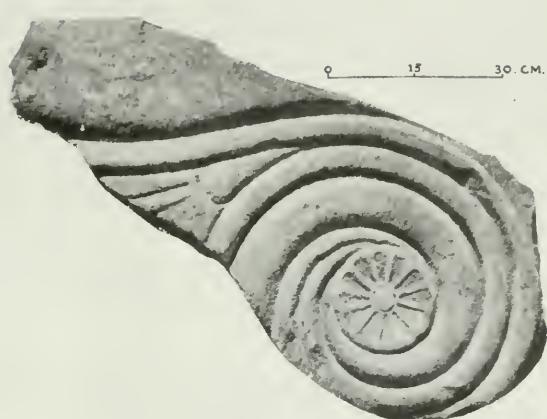
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6.

IONIC CAPITALS FROM CYZICUS. 50



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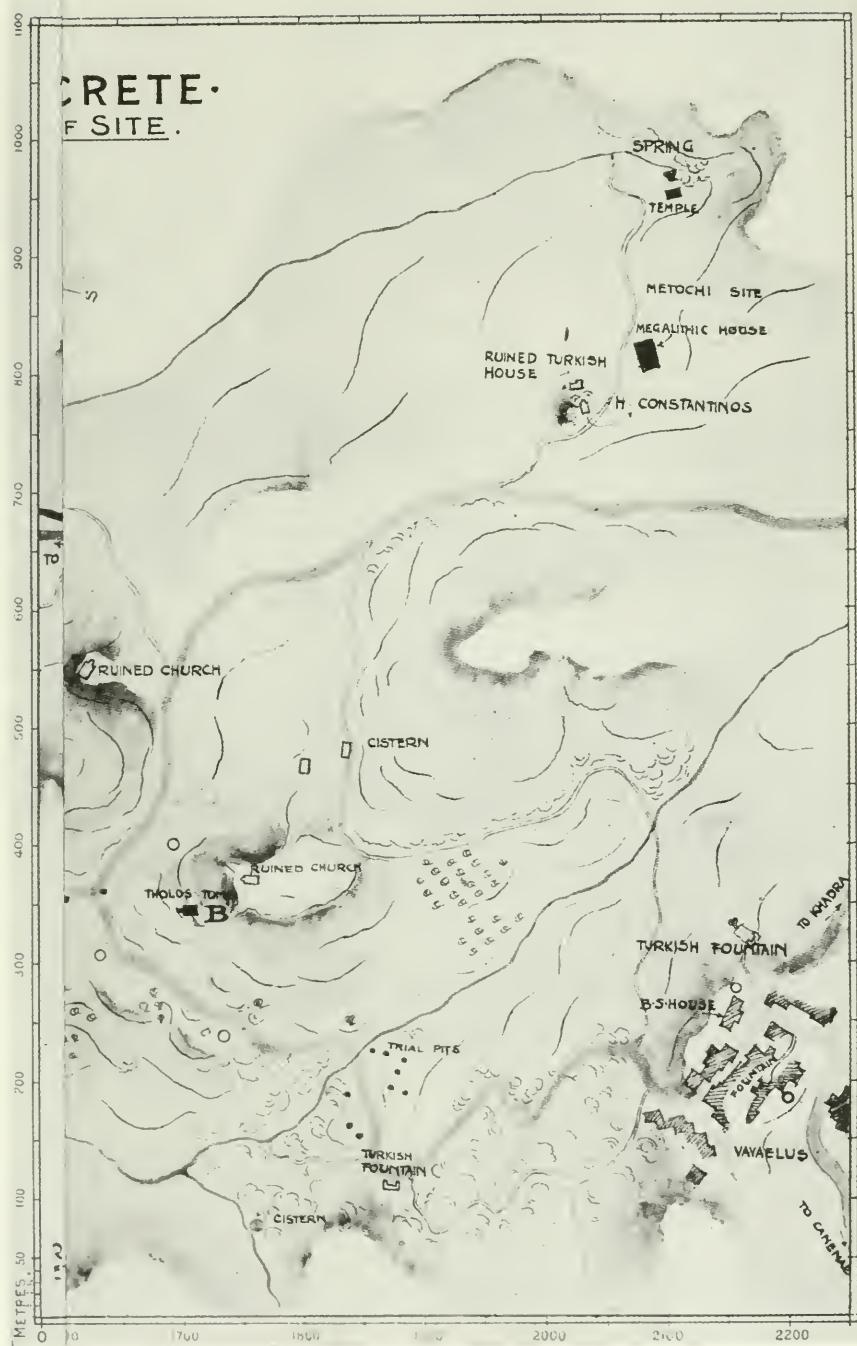
Bath Room

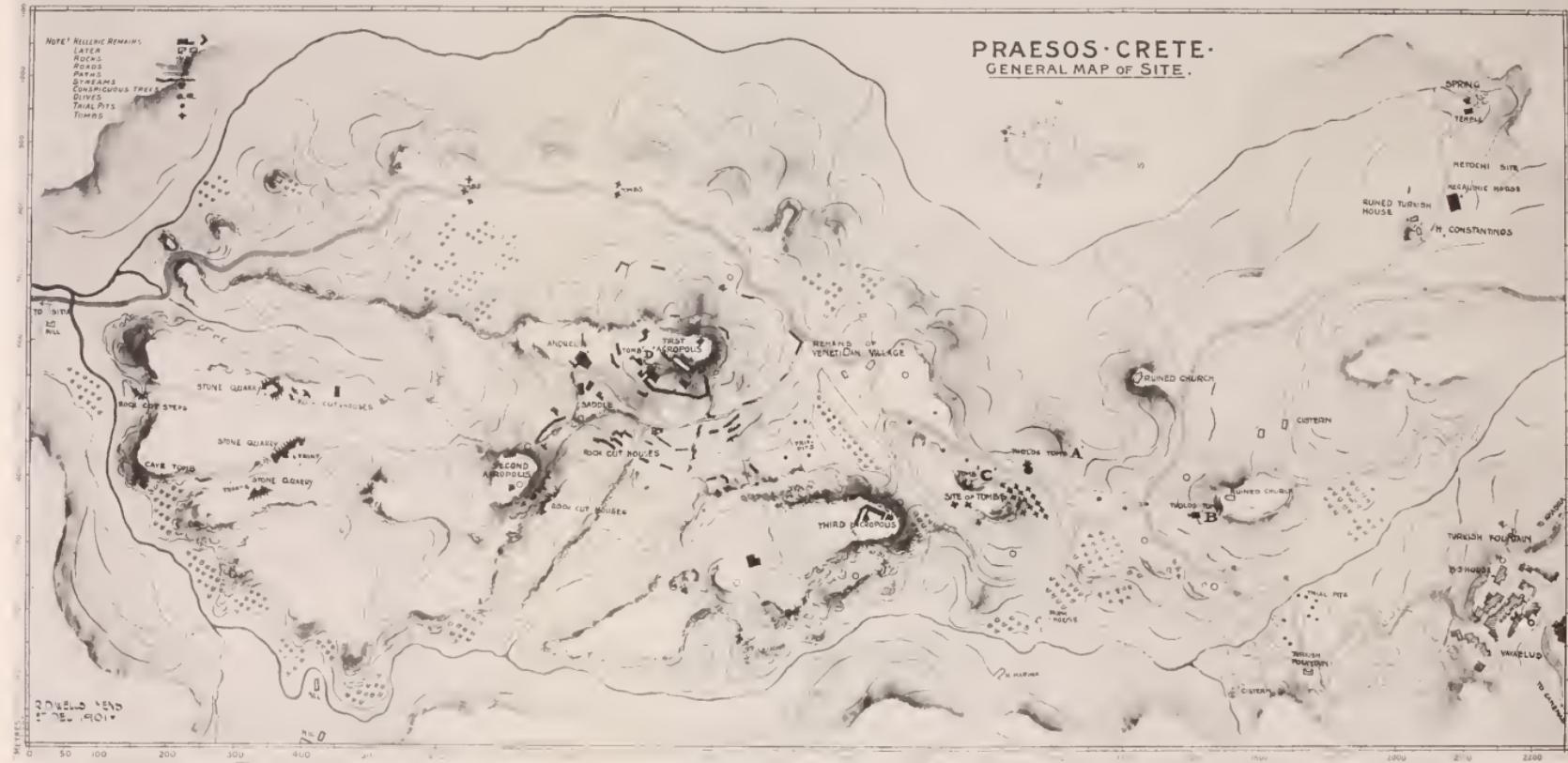
Square Imphodium with column bases at angles

2.

1. PRAEOST: REGION OF MEGALITHIC REMAINS.

2. PALAIKASTRO: INTERIOR OF HOUSE B.





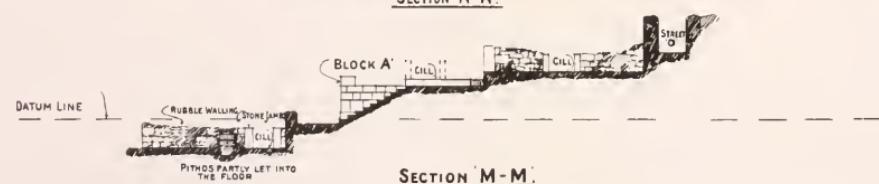
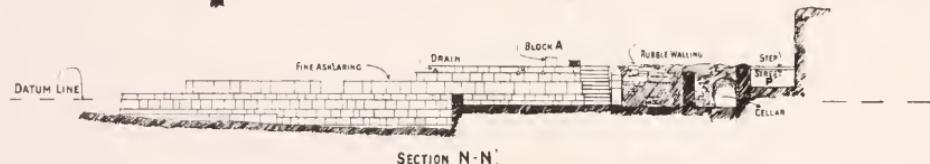
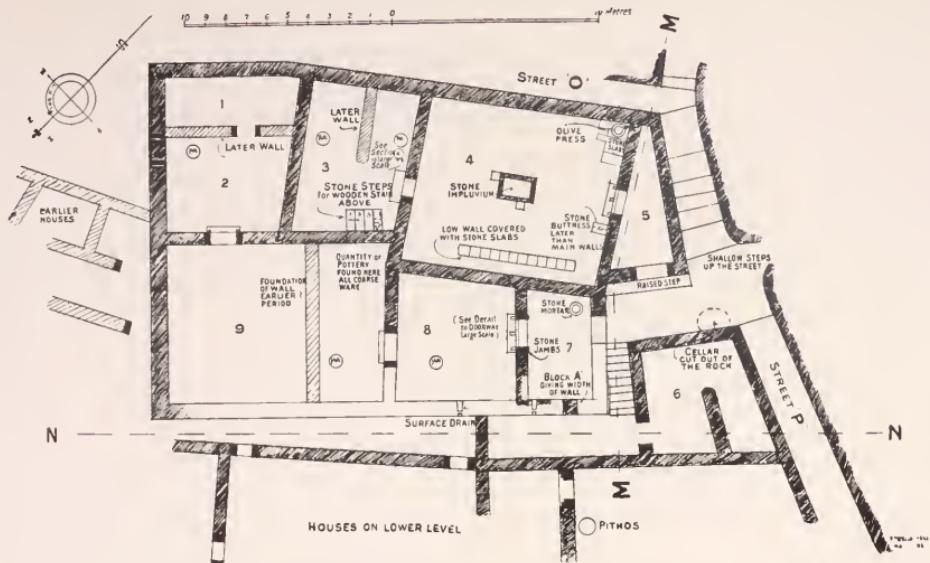




PLATES. MODELS OF ARMOUR FROM THE ALTAIR HILL

(Scale about 2:5.)







1.



2.

PRAESES — THE HEBREW HOME. — 1. TOWER IN WINE-2. 1095-661



1



2



PLATE XIV.—THE LION AND THE LEOPARD. (See Vol. VIII, p. 110.)

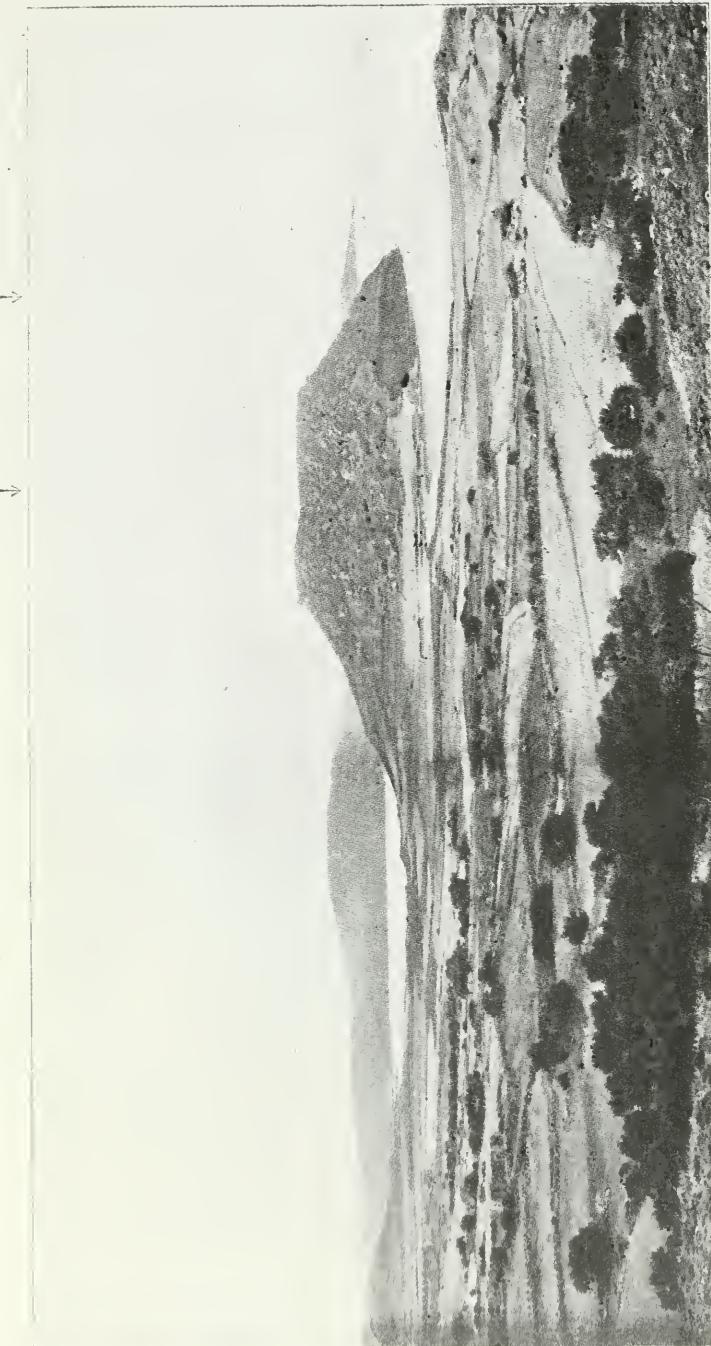
House A.



Ridge with  
Early Cemeteries.



Promontory of Kasri. ↓  
Harbour.



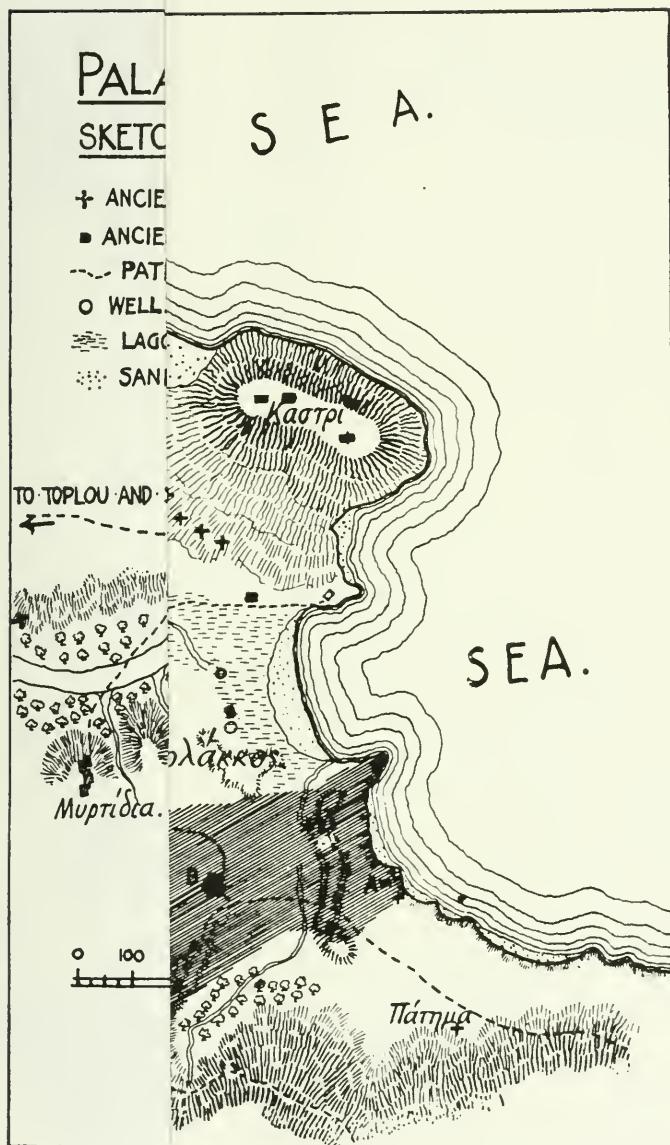
House B.

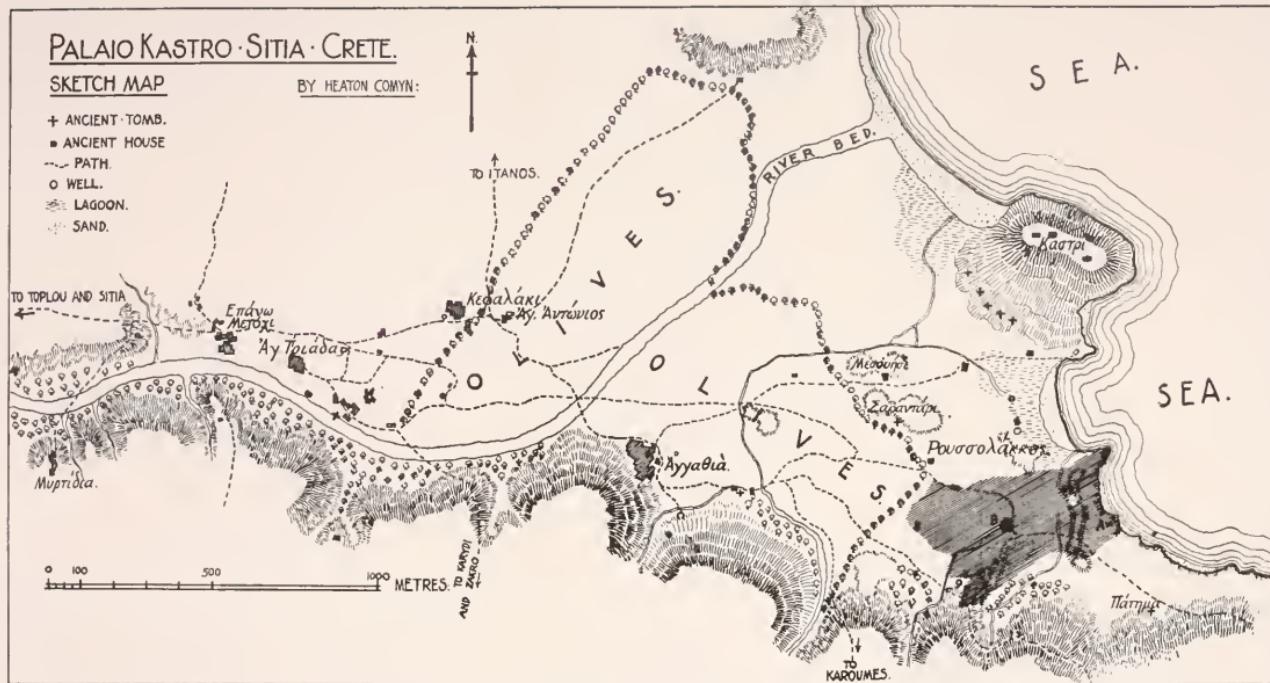


PAMAKASTRO: THE PLAIN FROM THE SOUTH.

Western limit of  
Mycenaean Town.







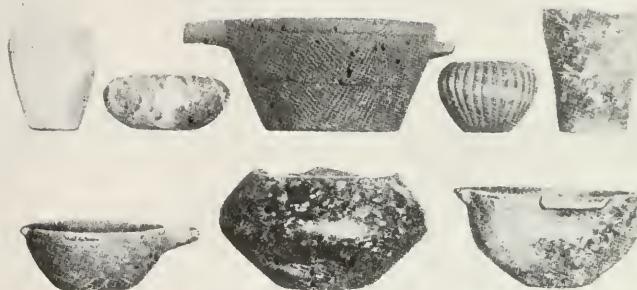
PALAIOKASTRO: SKETCH MAP OF THE PLAIN.



1. Stone Vessel with Spout.



2. Painted Cap.



3. Stone Vases.



PALAKKAN. Nos. 4-5 from the Telloo-Cistern  
4-5 from House B.



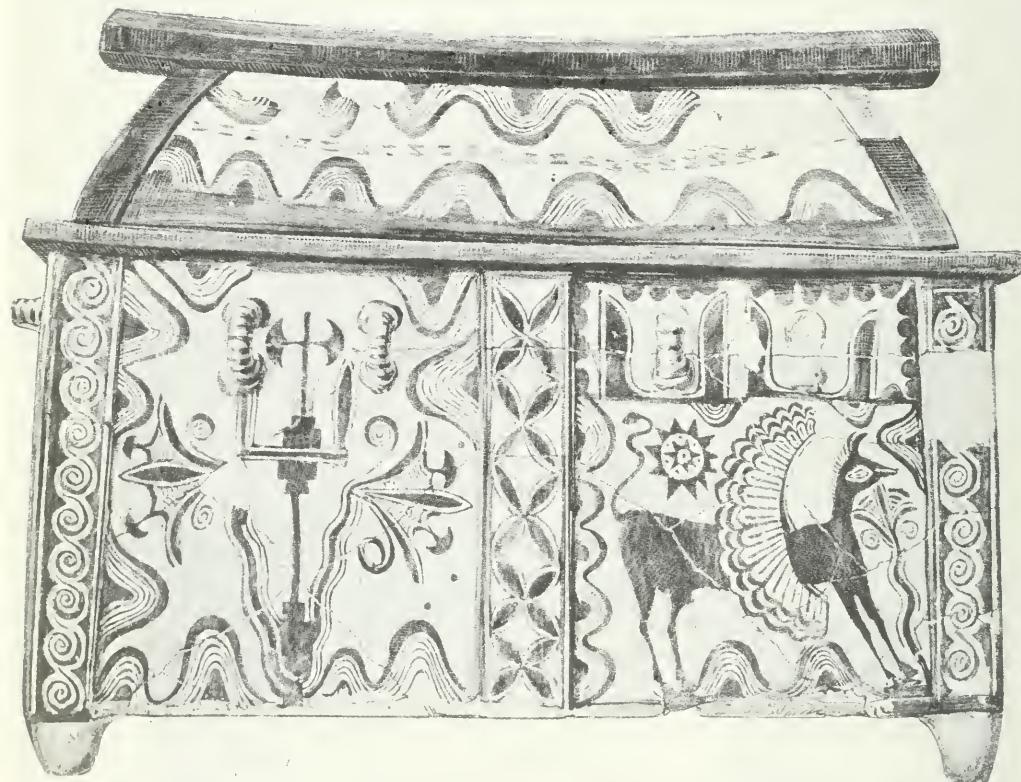
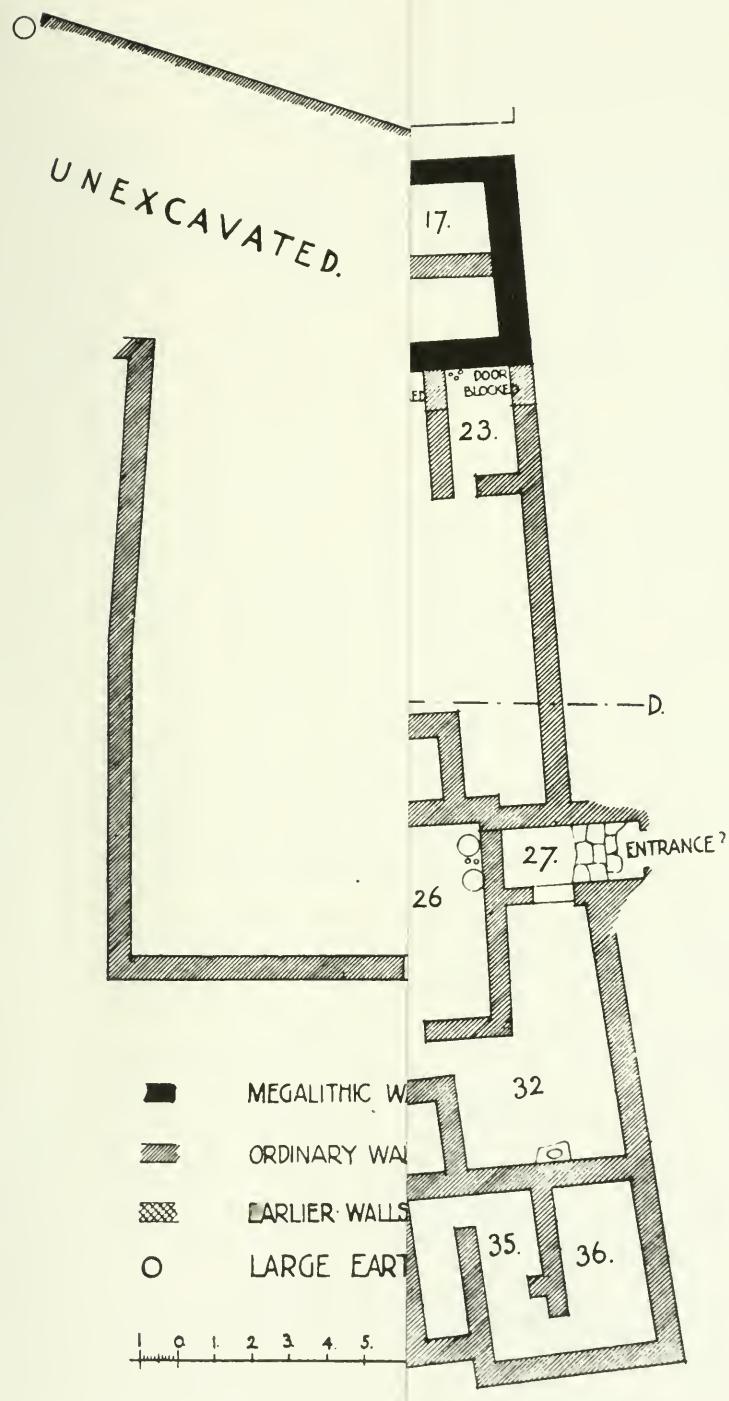


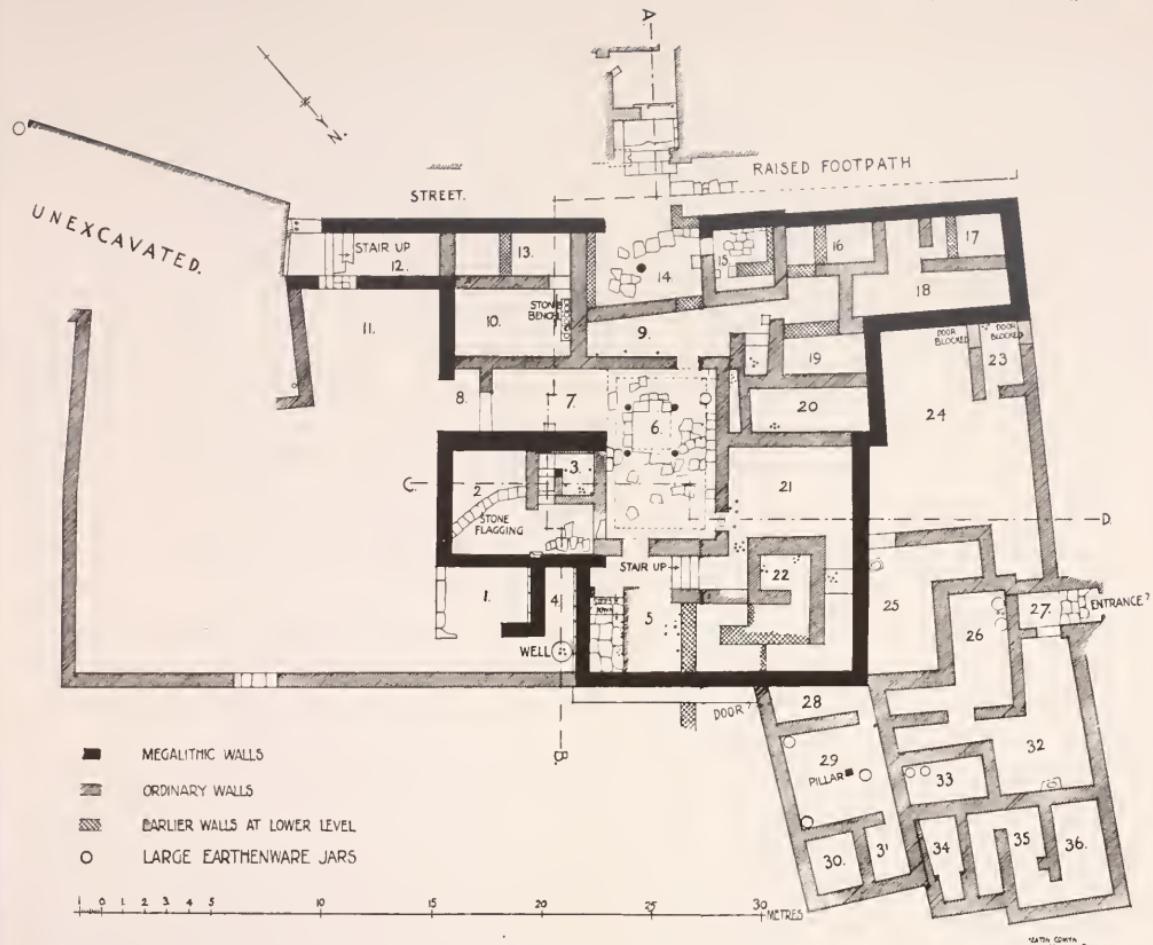
Fig. 1. VESSEL PAINTED IN COLOUR  
Scale (in.) 1 : 0.1



LID FROM POMPEII.  
S. ILL. PL. XIX.







PALAKASERO: PLAN OF HOUSE B

KATH. GOMA  
MENT ET DÉT. 100





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